Young people's use of video games as entertainment: Motivations and perceived implications, with a focus on the social aspects of video gaming.

Submitted by Harry Sebastian Morse to the University of Exeter as a thesis for the Doctorate in Educational, Child and Community Psychology, May 2019.

Signature……

Abstract:

Children's motivation for video gaming (the activity of playing video games), and specifically their social motivation for playing, is a relatively new field of academic enquiry. Growing concern over adolescents' and children's use of video games, and the time they spend playing, has spawned research on the possibility of video 'gaming disorder' (Faust & Prochaska, 2018). 'Gaming disorder', which is included with the 11th revision of the ICD (International classification of diseases), is described as impaired control over (video) gaming, increasing priority given to gaming over other activities and continued video gaming despite the occurrence of negative consequences (World Health Organisation, 2018). Consequently, video gaming is an activity of recent interest and through this project I will aim to explore children and young people's motivations for video gaming, how they are accessing/using video games, along with potential problematic use of video games within a population of young people in the South West of England.

In order to understand young people's experience of playing video games a mixed methods, two phase, research design was used. The first phase of this study employed the use of questionnaires incorporating an adapted version of the Internet Addiction Test (Young, 1998). The participants in Phase 1 were from a mixture of primary and secondary UK schools. These children were in school years 4/5 (8-10 years old) and years 8/9 (12-14 years old).

Results from the adapted version of the questionnaire demonstrated that 16.8% of the 214 participants experienced a high level of video game preoccupation, and that male participants and primary school aged participants were more vulnerable to video game preoccupation. The data also revealed that just over a quarter of the participants typically played video games for at least three hours in one sitting, while just under half of the participants played video games at least once a day.

Phase 2 of this research involved 27 participants who were involved in Phase 1. These participants took part in semi-structured interviews which were analysed using Braun and Clarke's model of thematic analysis (2006). The

participants' responses revealed their perceptions on a range of, both positive and negative, impacts video gaming has upon their social interactions, their social opportunities, their learning, their mood and their overall wellbeing.

This project adds to the growing body of research regarding young people's uses and experiences of video gaming, and the social implications for young people who participate in the activity. This thesis concludes with an exploration of the limitations of this research, future directions for study and the implications for educational psychology practice.

Acknowledgements

I would like to thank the following people for supporting this research project:

- The members of school staff who kindly took the time to organise, disseminate and collect questionnaires on my behalf.
- The pupils who completed the questionnaires or spent their time with me, talking about their experiences and perceptions of video gaming. Their honesty and insight has been highly valuable and is greatly appreciated.
- Dr Andrew Richards and Professor Chris Boyle, for their support and supervision throughout the research process.
- My family and my fiancée for supporting me throughout the process and for providing me with the time, space, and mental resources to carry out this research project.
- The trainee educational psychologists within my cohort (at the University of Exeter) for their support and helpful advice.
- The teaching staff who supported me with their extremely useful advice and feedback during the design phase of the project.
- I am very grateful to the schools in which the research took place. Their involvement allowed me to successfully carry out this project.

Contents

Chapter		Section	Section Heading	Page
			Abstract	3
Chapter 1	1.0		Introduction	15
	1.1	Author's background and relevance of the topic		15
	1.2	The increasing use of video games and the shift in how they are played by CYP		16
	1.3	Research Aims		18
Chapter 2	2.0		Literature Review	19
	2.1	Prevalence of video gaming across different cultures and countries		19
	2.2	The digital generation; are video games the only technology to be concerned about?		20

	2.3	How is the video game industry changing and who is playing?		22
	2.4	The rise of online video gaming and competing with other players		23
	2.5	Implications of video gaming and addressing misconceptions		26
	2.6	Problematic video gaming		31
	2.7	Why is video gaming relevant to professionals who work with/are concerned with children and their parents?		33
Chapter 3	3.0		Methodology	35
	3.1	Research Aims: restated		35
	3.2	Research Questions		36
	3.3	Research Method		37

	3.4	Ethical considerations for Phase 1 and Phase 2		38
	3.4.1	Consent		39
	3..4.2	Potential harm		39
	3.5	Philosophical orientation of the research		40
	3.5.1	Ontology		41
	3.5.2	Epistemology		42
Chapter 4	4.0		Phase 1 Methods	43
	4.1	Sample		43
	4.2	Sampling method		44
	4.3	Phase 1 design considerations		45
	4.4	Questionnaire construction		46
	4.4.1	Construction of the first 15 items		46
	4.4.2	Reliability of the 15 items		48
	4.4.3	Adapting Young's (1998) Internet Addiction Test		49
	4.4.4	Reliability of Adapted IAT items		55

	4.4.5	Refining the questionnaire		55
	4.5	Materials		56
	4.6	Procedures		56
	4.7	Data analysis procedure		57
Chapter 5	5.0		Phase 1 Findings	58
	5.1	Addressing Research Question 1		58
	5.2	Addressing Research Question 2		84
	5.3	Addressing Research Question 3		95
	5.4	Addressing part of Research Question 4		102
Chapter 6	6.0		Phase 1 Discussion	107
	6.1	Research Question 1 discussion		108
	6.2	Research Question 2 discussion		112
	6.3	Research Question 3 discussion		116

	6.4	Research Question 4 discussion		121
	6.5	Phase 1 discussion conclusion		122
Chapter 7	7.0		Phase 2 Methods	124
	7.1	Restating Research Question 3 and Research Question 4		124
	7.2	Sample		124
	7.3	Sampling method		125
	7.4	Design of interview schedule		125
	7.5	Materials		126
	7.6	Procedure		126
	7.7	Data analysis procedure		127
Chapter 8	8.0		Phase 2 Findings	129
	8.1	Theme one		129
	8.1.1	Theme one: subtheme one		130
	8.1.2	Theme one: subtheme two		132
	8.1.3	Theme one: subtheme three		132

	8.1.4	Theme one: subtheme four		134
	8.1.5	Theme one: subtheme five		135
	8.1.6	Theme one: subtheme six		137
	8.2	Theme two		137
	8.2.1	Theme two: subtheme one		138
	8.2.2	Theme two: subtheme two		139
	8.2.3	Theme two: subtheme three		140
	8.2.4	Theme two: subtheme four		142
	8.2.5	Theme two: subtheme five		144
	8.2.6	Theme two: subtheme six		148
	8.3	Theme three		151
	8.3.1	Theme three: subtheme one		152
	8.3.2	Theme three: subtheme two		154
	8.3.3	Theme three: subtheme three		160
Chapter 9	9.0		Phase 2 Discussion	162
	9.1	Analysis of Theme one		162
	9.2	Analysis of Theme two		171

	9.3	Analysis of Theme three		176
	9.4	Phase 2 discussion conclusion, including age/gender differences		182
Chapter 10	10.0		Phase 1 and Phase 2 overall discussion and conclusion	185
	10.1	How this research addressed the research questions		185
	10.2	Implications for Educational Psychology Practice		188
	10.3	Limitations of the research		190
	10.4	Avenues for future research		192
Chapter 11	11.0		Conclusion	194
Chapter 12	12.0		Glossary of terms	197
Chapter 13	13.0		References	200

Chapter 14	Appendix		Appendices: order of contents	217
	1	Information sheet and consent forms		218
	2	Questionnaire		225
	3	Questionnaire drafts and feedback from teachers		232
	4	Scoring framework for Video Gaming Preoccupation Questionnaire		243
	5	Interview schedule		245
	6	Pilot unstructured interview transcripts		249
	7	Example interview transcripts (one primary school aged participant and one secondary school aged participant)		254
	8	Screenshot examples of		261

		thematic analysis (including themes and nodes)		
	9	Overall thematic map		270
	10	Certificate of ethical approval		272

Chapter 1: Introduction

1.1 Author's background and relevance of the topic

I am currently a trainee educational psychologist working for an educational psychology service in the South West of England. I am enrolled in the 'Doctorate of Educational, Child and Community Psychology' with the University of Exeter. A trainee educational psychologist supports and works with young people (with special educational needs), alongside their families and education-based professionals. We work with a range of difficulties a young person may experience such as: learning needs, communication difficulties or emotion based challenges (to name a few). Prior to the course, I worked as a learning mentor within a multi-agency team to support CYP (children and young people) with social/emotional and communication/interaction challenges. I worked directly with young people on a one to one basis, along with group work, and consultations with families. During my time in both roles I've met many young people who spoke extensively about the time they spent playing video games, and how their thoughts were often preoccupied with video gaming. I was aware of different opinions (from adults) towards young people's use of video games. In some cases (where young people experienced social/emotional difficulties), blame was attributed towards video games; particularly regarding situations where it was deemed CYP were spending too much time playing or the content was deemed inappropriate, or too 'adult'. Other professionals and families felt that video gaming was a positive activity for CYP, and a good use of free time when used in moderation.

Furthermore, I was aware of CYP discussing their reasons for playing video games, and while some of these appeared to be associated with personal pleasure and challenge, many talked about playing video games within the context of socialising and as an opportunity to speak with friends. It seemed that video gaming was a widely discussed topic in educational settings (for CYP) and, consequently, I considered the wider impact of video gaming on a social level. Throughout my time in both roles (learning mentor and trainee

educational psychologist), I found myself engaged in conversations where parents or professionals would ask questions such as “how much time (spent video gaming) is too much?” or “are they spending more time playing than others?”. Within some of the schools, teaching staff had concerns regarding how many CYP were playing or being exposed to video game content intended for older CYP or even adults, and, again this was something I was interested to explore.

Some key questions which interested me, as a psychology based professional within education, are 1) why CYP are motivated to play video games (and to what extent are these motivations of a social nature), 2) how many CYP are spending large amounts of time video gaming and 3) to what extent are their thoughts/behaviours preoccupied with video gaming. Such information could allow me, or others, to support schools/families so CYP can be effectively safeguarded. Furthermore, as a psychology based professional, the social aspect of video gaming is of personal interest as video games can (potentially) provide CYP with additional opportunities to socialise, and they can facilitate changes in the way CYP interact with each other during their time outside, and inside, of school.

1.2 The increasing use of video games and the shift in how they are played by CYP

Market analysts have claimed the UK is ranked as the 6th largest video game market, globally (Newzoo, 2015), and that the combined UK physical and digital sales of video games increased by 9.6% between 2016, to 2017 (Entertainment Retailers Association, 2018). While it is challenging to identify the quality of the methods used within market research, it remains clear that video gaming is a popular activity within the UK. CYP are increasingly presented with new and various methods for accessing video games, such as the availability of video games through mobile devices (Kabali et al., 2015). Within the United States, evidence has demonstrated that many CYP may prefer to spend their time video gaming compared with outdoor (physical) activities (Lu, Baranowski, Hong, Buday & Thompson, 2016). Rideout, Foehr and Roberts (2010)

acknowledged that on any given day, 41% of male teenagers (in the US) play video games. CYP's behaviours appear to be slowly shifting towards increased use of digital technologies for a multitude of reasons and as Granic, Lobel and Engels (2014) suggested, communicating with others could be one of these motivating factors. I would argue that such a shift in behaviour, and the potential social implications of video games, deserves attention from a psychological perspective; particularly from a UK perspective due to the relative lack of findings compared with research in other countries. I believe it is important to understand CYP's motivations for their perceived high use of video games and the extent to which video gaming: 1) is a facilitator for social opportunities for CYP and 2) impacts upon CYP's social interactions.

One of my arguments, is that I believe there to be a distinct difference between a young person playing video games in a solitary fashion (without communicating with others) compared with a young person who plays video games involving communication with others (e.g. communicating via a microphone capable headset). One may presume that the two experiences would be highly different, and while it is difficult to say one is more beneficial than the other, as social beings, might it be considered that online video gaming provides additional opportunities to engage in activities which make us human? While I recognise that video gaming online (with or against other players) entails its own safeguarding/E-safety risks (Sharples, Graber, Harrison & Logan, 2009) and while playing video games in a solitary fashion is by no means a negative activity in its own right, there is scope for online video games to be perceived as a positive experience.

For educational psychologists, I believe there are several questions which, if answered, will help us better understand: important aspects of CYPs social development, the prevalence of potentially problematic video gaming, and how to keep CYP safe. These include how CYP use video games, how much time (spent playing) could be considered excessive and understanding why young people play video games (including the social aspect of online video games). If there is a shift in how CYP are communicating, and if video games are facilitating such a shift, I feel it is important for educational psychologists to be aware of such changes. Such knowledge can potentially allow educational

psychologists to effectively consult and support families, parents and CYP about video gaming. Additionally, it will help us to reflect upon the differences in how video games are used and the implications of such differences.

1.3 The aims of this research

- To identify how and when CYP are video gaming (what devices they are using, whether video gaming using mobile devices is common, and how often CYP are playing).
- To understand how much time CYP spend thinking about video gaming when they do not have immediate access. Do CYP think about video gaming when they are at school or during learning activities?
- To identify CYP's motivation for video gaming and to what extent CYP play video games for social reasons? Do online video games provide additional opportunities for CYP to socialise/interact? How do CYP perceive the social interactions that can take place through video games?
- To explore how CYP reflect upon their use of video games, including any perceived advantages or disadvantages of video gaming.

Chapter 2: Literature Review

2.1 Prevalence of video gaming across different cultures and countries

For children and young people growing up in 21st century Western societies video gaming is a popular and normal activity (Trespalacios, Chamberlin, & Gallagher, 2011). Video gaming, the activity of playing a video game, has various definitions, such as that provided by Esposito (2005); a game which is played through audio-visual apparatus which may be based on a story. As discussed by Connolly, Boyle, MacArthur, Hainey and Boyle (2012), a video game can be categorised based on whether the primary function of the game is for entertainment, or for learning. There are video games which have been developed for entertainment purposes, while others are intended for learning. Within this piece of work, I will be discussing video gaming within the context of entertainment. An American survey, involving 1,463 participants (all of which were parents of children aged nought to eight), conducted by Common Sense Media (2013) highlighted a 25% increase in the time children and young people (CYP) spent playing video games using mobile devices between 2011-2013. Evidence suggests improvements in technologies, better access to online networks, and increased realism are responsible for video gaming's developing popularity (Wood, Griffiths, Chappell, & Davies, 2004). Additionally, I would argue that the rise in sophistication and level of engagement (through advanced game engines and graphical improvements) has likely provided young people with an added level of immersion. Many have highlighted the preferences CYP have for electronic media over outdoor activities, and these findings are backed up with evidence which has sought to investigate how CYP use their time (Popkin 2001; Singer, Singer, D'Agnostino & DeLong, 2009).

Particularly within America and Scandinavia, there is much research which focuses on the prevalence of video games and the extent of their usage across different age groups (Anand, 2007; Gentile, 2009; Mentozni, 2011; Smohai et

al, 2017). Research by Mentzoni et al (2011) investigated the prevalence of video game use amongst a Norwegian population. Their research found that problematic use of video games was reported by 4.1 percent of their sample, and that adolescent males were at the greatest risk of problematic video game usage. Their research also highlighted how problematic use of video games was associated with lower scores on life satisfaction and with elevated levels of anxiety and depression. Conversely, a United States study which focused specifically on 'internet gaming disorder' revealed that not only is there weak evidence to suggest 'internet gaming disorder' relates to physical, social and mental health outcomes, but that internet-based games are significantly less addictive than high risk addictive activities such as gambling (Przybylski, Weinstein, & Murayama, 2016). Following the World Health Organisation's classification of 'gaming addiction' (2018) as a recognised condition and the DSM 5 (Diagnostic and Statistical Manual of Mental Disorders- fifth edition) also recognising 'internet gaming disorder' as a condition, this area of research is a highly relevant and contemporary debate.

However, while there is a strong focus on the potentially adverse effects of 'problematic' video gaming, particularly in recent years, there is a gap within the literature regarding the perspectives of young people to ascertain whether they feel video gaming either positively, or negatively impacts upon their lives. Research by Lee, Clarke and Rossi (2016) was conducted within the US to investigate children and young people's (CYP) own views regarding their video game usage, and while the study provided some useful insight into the behaviours of CYP who play video games, such research does not currently extend to UK populations, or consider the potential social aspects of video gaming. Considering how research has highlighted increasing use of video games across different countries (Granic, Lobel, & Engels, 2014; Lee, Clarke & Rossi, 2016), there is further scope to explore why CYP are motivated to play video games within UK based populations, and how video gaming is important to CYP for different reasons.

2.2 The digital generation; are video games the only technology to be concerned about?

Video games devices (consoles) have been around for a few generations up to now (Egenfeldt-Nielsen, Smith & Tosca, 2008) and this could mean that parents will have greater insight into their children's use of video games, or alternatively, could mean that they project their own potential desensitisation onto their children. Whatever the outcome, it is worthwhile considering the role of parents within the context of CYP's use of video games in today's society and utilising their understanding of their children to identify what is best for them and how they are using video games.

As research has shown (Larouche, Garriguet & Trembla, 2017), children and young people's time spent looking at electronic screens has risen dramatically in recent years. This includes the use of electronic tablets (such as iPads), time spent watching television and time spent on smartphones. Additionally, the rise of online services such as Netflix, Prime video and Rakuten (television streaming services) has meant that access to a larger volume of content has never been more readily available (Oyman, Helmy, Ragab, & Rehan, 2017). When considering the increased use of video games by young people, these statistics are not surprising given the surrounding context of how electronic device and digital services are used, overall. Likewise, with the online service providers of television and films, CYP also have access to similar subscribed services through video games consoles. A survey conducted by Hasan, Jha and Liu (2018) acknowledged the addictive qualities (in terms of lack of self-control and excessive use) of services such as Netflix and Prime video and I would argue that online video gaming services such as PSN (PlayStation Network) and Xbox Live share similar features; such services provide free access to certain video games and video gaming content and access to a vast library of video games for digital download for a monthly or annual subscription fee. Research by Berger (2015) stated that video gaming consoles are designed to exploit human behaviour and present content in a package which is attractive and resembling that of other online based products. To a greater extent, it is likely that there are several factors, such as increases in screen time exposure more generally, which are responsible for increasing children and young people's use of video games other than the video games

themselves, however, it appears that video games are certainly influenced by other digital services in terms of their design and structure.

While it is important to recognise how video games share similarities with other forms of digital screen use, it is also useful to highlight the differences in their use and the impact they have. A key difference being the user's participation, which is (usually) active within video gaming, compared with, for example, the passive approach to watching content on an iPad, television or mobile phone (Sweetser, Johnson, Ozdowska, & Wyeth, 2012). The complexity and technology involved within gaming consoles, along with the advanced software used to create some of the most immersive experiences available through technology are prevalent within video gaming. Research has shown how, as a result of the active way in which video games are used (compared with other digital content), video games can have a variety of cognitive benefits (Bavelier, Achtman, Mani, & Föckerk, 2012; Green & Bavelier, 2015; Spence & Feng, 2010). These findings highlight improvements over users' reaction time, speed of processing, attention to detail and being able to respond to a variety of stimuli simultaneously.

2.3 How is the video game industry changing and who is playing?

As highlighted within an American survey for parents (of children aged up to eight years old) carried out by the non- profit research organisation Common Sense Media (2013), 51% of the participants' children had played a video games console. This included 44% of two to four-year olds and 81% of five to eight-year olds, with the average age at first use (of a video games console) being just under four years old. To provide some insight as to how much time these children spent playing, five to eight-year olds typically played video games for 12 minutes a day, however, of the CYP who regularly played video games, this figure was found to be over an hour per day. These findings were compared with results from the same survey which was conducted in 2011. Over the course of those two years, for children who regularly play video games, the time spent playing on mobile devices (such as mobile phones and digital tablets) had risen from 30 minutes to 45 minutes per day. The report found that between 2011 and 2013 the number of families who owned a tablet device increased by four-fold from 8% to 40%. Furthermore, the number of

children with regular access to an electronic mobile devices capable of playing video games also rose from 52% to 75% within the same time frame. The research demonstrates the changes with regards to the time CYP spend playing video games and the relatively high number of young children (four and under) who regularly play video games.

These figures are of personal interest due to the contrast with how video games were used by previous generations (including my own generation) over the past twenty years. While the average age of video gamers, currently 35 years of age, is slowly increasing (Williams, Martins, Consalvo, & Ivory, 2009), the number of young children playing video games is also increasing (Nielsen, 2017). Ultimately, this shift in how video games are used by different age groups means that greater attention and awareness is required to determine the positive and negative impacts of CYP playing video games. While video game use amongst CYP is growing, it appears as though the amount of research investigating the potential impacts is small in comparison. As far as education and the emotional wellbeing of children is concerned, if children are spending more time playing video games it is likely that other activities, hobbies and lifestyle choices are being substituted/compromised to make way for this activity; something I aimed to explore. Gaining further insight into how children and young people use video games will allow for educational settings, parents, teachers and government level officials to assess the risks and benefits of video gaming. Due to the ongoing technological advances (particularly as far as video games are concerned), ascertaining the benefits and risks of activities which children and young people engage with on a frequent basis is imperative; especially considering how many parents appear to have a limited understanding of the impact of video gaming (Griffiths, 2010).

2.4 The rise of online video gaming and competing with other players

As Plante (2016), senior editor at ‘The Verge’, has suggested, the quantity of video games with online capabilities is far greater in recent years than it was ten years ago. The developments in technology and how video games are made reflects the way in which CYP use them and what they expect. Video gamers

can currently participate in video games with over 100 people as part of the same online server (Billieux, Deleuze, Griffiths, & Kuss, 2015). With online capabilities comes the opportunity to use video gaming as an extension to CYP's social lives. Not only are CYP able to play alongside each other remotely, many video games allow the players to communicate to each other through microphone enabled headsets, talking via keyboards, as well as using a webcam to provide a live video stream of themselves. Andreassen et al (2016) discussed how CYP now use video gaming as a form of social media while De Nardis and Hackl (2015) highlighted the similarities between PSN and Xbox Live (the two respective systems allowing CYP to play online via Sony's PlayStation and Microsoft's Xbox) with social media platforms such as Facebook and Instagram. Furthermore, the Microsoft Xbox and Sony's PlayStation can also be linked to social media accounts to allow for additional personal information to be shared between players. Hart et al (2017) noted how video gaming consoles have shifted in their development towards reflecting the way social media accounts are visually presented. This is evident in the way gaming consoles present their information and how they allow for information to be exchanged; such as profile pictures, location information and having the opportunity to add another player to your 'friend list'.

Ascertaining why CYP show a preference for playing online video games has been summarised by Ghuman and Griffiths (2012). Their research found that children and young people felt a greater sense of immersion and reward from playing with and against other online players while such motivators were not found within offline/singleplayer video gaming (where competition with other players is not available). Other research has found that many CYP prefer to spend their time playing video games with their friends instead of previously typical/traditional activities; such as meeting up outside of school to play sports, trips to the cinema and other non-academic activities (Prensky, 2006). Yee (2006) identified that playing online video games provides young people with several aspects of enjoyment. This includes working towards a shared goal, progressing (e.g. levelling up your character etc), using communication to share strategies and moreover, the increased rate of success when playing video games with peers (as there are more players focusing on the same objective).

When considering these motivators, one can begin to identify why some CYP prefer online video gaming over other activities, especially when such video games can provide a consistent and reliable source of entertainment (such as the chance to repeat activities in quick succession or the practicality of engaging within team-based games from one's home). With regards to the added competitiveness of playing with other people, Chan and Vorderer (2006) found that the perceived reward of competing with other people is far greater than playing with or competing with AI (artificial intelligence). Rambusch, Alklind-Taylor and Susi (2017) recognise how this is evidenced through the growing popularity of 'E- sports', a televised category of sport, where participants are paid and sponsored for playing video games competitively. Furthermore, the increased popularity of CYP using YouTube as a medium for creating their own 'channels' where they can share videos of themselves playing video games while earning revenue from others viewing their videos has further increased the popularity of online video gaming (Smith, Obrist & Wright, 2013). Videos of CYP competing online and demonstrating their competence against other players have been recognised as some of the most subscribed channels on YouTube (Kaytoue, Silva, Cerf, Meira, & Raïssi, 2012).

A key difference when comparing the use of video games with that of social media accounts is parental safeguarding. Piller and Roberts-Woychesin (2015) noted how, within US populations, parents typically have a far greater knowledge/understanding of social media accounts compared with their knowledge of video games and the respective consoles they are played on. There is also an issue concerning CYP who are accessing online video games, or video games with a PEGI (Pan European Game Information) rating greater than their own age and how often they're supervised by an adult (Kutner, & Olson, 2008). Parents/carers should arguably be monitoring 1) the amount of personal information CYP are sharing through video game online accounts, 2) who they are potentially communicating with and 3) the content they are exposed to within video games. Recognising the variation in content CYP are exposed to through video games is key when looking to support them and promote their safety. Video games which are rated as '16' and '18' can feature a range of content inappropriate for younger children, including (as described on

the PEGI website): ‘bloody violence’, ‘illegal drugs’, ‘glamourised representation of crime’, along with ‘gross violence’ and ‘sexual violence’. Research has demonstrated the importance of preventing CYP from exposure to video games with a PEGI rating greater than their chronological age (Bijvank, Konijn, Bushman & Roelofsma, 2009) and so supporting parents’ understanding/knowledge of their children’s use of video games is imperative for keeping CYP safe. However, despite such research and concerns regarding CYP using video games with certain PEGI ratings, it is important to acknowledge that the PEGI classification system is based on questionable principles, according to Felini (2015). Felini argued that the classification is flawed due to the contradictions of different perspectives of those involved with classifying video games, such as the way in which video game producers are actively involved in the assessment of their own products. Such involvement could mean that producers may favour a lower PEGI rating (than is actually appropriate) to appeal to a wider audience. Ultimately, when considering the potential impact of a video gaming upon a CYP, it must be recognised that PEGI ratings are not consistent across video game titles as a result of the classification process.

2.5 Implications of video gaming, misconceptions, and theories of motivation

As mentioned, there are several aspects of playing video games which meet the needs of many young people. These needs include: self-efficacy, having an objective to work towards, gratification of perceived success and the opportunity for social interactions (Vorderer, Hartmann, & Klimmt, 2003). Ultimately, a key but reductionist question which will be pondered by parents and education-based professionals (and one which will unlikely be answered) is whether playing video games is good or bad for CYP. The answer will not be simple, however, any information which evidences the benefits or detriments of video gaming can inform us as to what is safe for CYP and what is not (How much time spent video gaming is too much? Are there any cognitive benefits/negatives? Does playing impact upon behaviour?).

As Rigby and Przybylski (2009) have noted, there are still many misconceptions and assumptions around video gaming and how they are perceived to impact upon CYP. A key issue which has been widely studied is the association with violent video games (or video games with adult themes) and whether they have a detrimental impact on CYP's behaviour. Anderson (2004) carried out a meta- analysis investigating CYP's exposure to violent video games. The main finding from this research was that exposure to violent video games was associated with decreases in helping behaviour (voluntary actions intended to help others, with reward regarded or disregarded), rather than increases in aggressive behaviour. Other research has suggested that violent video games are more likely to increase the occurrence of violent behaviours compared with non- violent video games, which have been shown to increase pro-social behaviours (Greitemeyer & Mugge, 2014; Greitemeyer & Osswald, 2010; Sestir & Bartholow; 2010); as inferred from the range of literature on this specific topic, there are many contradictions.

Ferguson, Olson, Kutner and Warner (2014) hypothesised that "vulnerable" CYP (vulnerable referring to CYP with mental health difficulties or experiences of emotional trauma) may be more susceptible to negative outcomes of playing violent video games. Interestingly, they found that the opposite was more likely to be true; CYP who have not had experience of traumatic events (violence, domestic abuse and other difficult life experiences) were more vulnerable to violent and mature content within video games. Another variable which seems to yield differing impacts upon CYP is their age. Research has provided more conclusive and linear evidence to suggest that CYP under the age of ten are more susceptible to negative outcomes from playing violent video games compared with CYP aged ten years old or more (Cooper, & Mackie, 1986; Griffiths, 1999). This is certainly the case where CYP under the age of ten are playing video games intended for much older CYP, or adults. The increased exposure of CYP under the age of ten to video games containing violence, inappropriate language and anti-social behaviours are far more likely to demonstrate negative behaviours associated with the content of those games (Griffiths, 1999). In addition to the association of video games with violent behaviours there are also concerns around video game use and academic

performance, mental health, substance misuse and conduct problems. Brunborg, Mentzoni and Froyland (2014) investigated these variables to find that while video game addiction was related to depression, lower academic achievement and conduct problems, time spent on video games was not related to any negative outcomes. Essentially, there are many other variables which contribute to 'video game addiction' or 'problem gaming' other than time spent video gaming. It is also important to reflect upon how the relationship between video game addiction and depression is only a correlation, and it is possible that other variables (such as socioeconomic status or poor academic performance) are responsible for that correlation. Research by Bartel, Gradisar and Williamson (2015) investigated the relationship between video game use and sleep (amongst other factors) for adolescents. They found that prolonged video gaming exposure/use may cause significant disruption to adolescent sleep, even when sleep after video gaming is initiated at a normal bedtime. This concurs with other evidence by Levenson, Shensa, Sidani, Colditz and Primack (2016) who highlighted the way in which technology, in particular social media, impacts upon adolescents' sleeping patterns. As video gaming consoles are integrated with social media accounts/platforms (Andreassen, Billieux, Griffiths, Kuss, Demetrovics, Mazzoni, & Pallesen, 2016), this issue may well be exacerbated.

While it seems that there are some negative outcomes from playing video games for certain young people in specific circumstances, there is also evidence to suggest that there are also benefits from playing video games. As mentioned, several studies have shown how video games which promote and involve pro-social behaviour increases the likelihood of players demonstrating the same pro- social behaviours themselves (Greitemeyer & Mügge, 2014; Greitemeyer & Osswald, 2010; Sestir & Bartholow, 2010). This evidence is true for CYP of all ages and highlights ways in which video games could be used to improve behavioural outcomes.

Along with the social impacts of video gaming, there are also cognitive benefits to be seen. Spence and Feng (2010) found that playing action video games induces change in several sensory, perceptual and attentional abilities that are important for tasks involving spatial cognition. These abilities include

contrast sensitivity, spatial resolution, attentional visual field, enumeration, multiple object tracking and visuomotor coordination and speed. The researchers implied that video gaming may contribute towards CYP's improved understanding of the mechanisms of learning and new approaches to teaching spatial skills. Malone and Lepper (1987) set out to create a taxonomy to guide and sharpen learning processes (with a focus on education) based on the principles of video gaming. Their work identified several intrinsic motivators associated with video gaming including challenge, performance feedback, control, competition and goals. While they argued that transferring these motivators to learning activities is a complex process, the use of a taxonomy as a guideline should, at the very least, help educators to better understand what can be done to make learning more interesting for children and young people. Hoffman and Nadelson's (2010) research also found that video gaming precipitated positive affect and cognition even when unsuccessful results were achieved. Their research investigated a range of factors and found that CYP self-reported video gaming as being socially captivating, fun and challenging but relaxing. One of the more interesting aspects of this research was how participants experienced the positive affect associated with success during game play, whereas, the negative consequences normally associated with task failure were not reported. While these results clearly highlight the perceived benefits of video gaming for CYP, unfortunately, Hoffman and Nadelson (2010) concluded the transfer of motivational engagement in gaming for entertainment to educational contexts was unlikely to occur.

With specific reference to CYP's motivation(s) for video gaming, there are several psychological theories which are associated with the experience of video gaming. 'Flow' theory concerns the pleasure found by immersion in everyday activities to the point where the activity is self-motivating and intrinsically rewarding (Csikszentmihalyi, 1997). Sherry (2004) discussed how flow is experienced by video gamers, and this is demonstrated through their desire to continue playing, for (as an example) the intrinsic pleasure of completing the next level. Another theory which has been linked with video gaming is that of 'self-determination' theory. The theory is an empirically based theory of motivation and development, which argues that different types

of motivations exist (Deci & Ryan, 2008). Such types of motivation include autonomous motivation, controlled motivation and motivation as predictors of performance or well-being. The concept focuses on the degree to which behaviour is self-motivated within the context of external influences. Rogers (2017) used self-determination theory as a lens for understanding how video gaming enjoyment can be understood by the feedback, rules and social elements of video games. They found that the dimensions of self-determination theory could be used to predict enjoyment within video gaming. And finally, a third psychological theory which has been used to explain motivation within video gaming is that of 'uses and gratifications' theory. The theory, which was initially used to explore why people watch television and listen to music (Schramm, Lyle & Parker, 1961), has also been used to explain why people use video games (Sundar & Limperos, 2013). Ultimately, the theory implies that people have a distinct need for entertainment, and that they will seek out media which can potentially meet such needs. These theories will be discussed in further detail alongside results from the findings of phase 2.

Furthermore, for many young people, a key benefit of video gaming concerns the social interactions which take place through video gaming (Kowert, Domahidi, & Quandt, 2014). Video gaming is now synonymous (for CYP) with talking and playing with friends, without the need to be in the same physical space. For many young people, this has provided opportunities to make friends, and allow them to portray a different version of themselves (De Mul, 2015). Research has highlighted how video gaming can be particularly beneficial for people with autism as it allows them to communicate with peers and work towards a shared objective/goal without having to deal with the complexity of face to face interactions; such as eye contact, body language and facial expressions (Mazurek, Engelhardt, & Clark, 2015). Equally, for many young people, playing video games with others allows them to build on or improve their social status, even if that reputation is not transferable to how they are perceived in school (Olson, 2010). CYP who are proficient at video gaming but lack other social or academic qualities can gain use video gaming to improve their self-efficacy all the while receiving respect from their peers for their competency; which may contrast greatly with how they are regarded in

person. Furthermore, while there are always risks involved with sharing information and meeting new people through online video gaming, it still provides an opportunity for young people to meet others with similar interests. It could be argued that building relationships through video gaming is easier compared with other activities due to the prearranged missions, activities and objectives which video games provide (Wohn, Lampe, Wash, Ellison, & Vitak, 2011).

2.6 Problematic video gaming

In 2013, the Diagnostic and Statistical Manual of Mental Disorder 5 (DSM-5) added 'internet gaming disorder' as a condition that is not yet classified as a formal disorder but a topic that warrants additional clinical research and study. Their classification of 'Internet gaming disorder' focuses on gamers who have an unhealthy preoccupation with online video games - regardless of whether they are played on computers, consoles, or mobile devices. Similarly, in 2018, the World Health Organisation (WHO) established that 'gaming disorder' would be defined in the 11th Revision of the International Classification of Diseases (ICD-11), mid-way through 2018. Gaming disorder involves a pattern of gaming behaviour ("digital-gaming" or "video-gaming") characterised by "impaired control over gaming, increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and daily activities, and continuation or escalation of gaming despite the occurrence of negative consequences". For gaming disorder to be diagnosed, the behaviour pattern must be of sufficient severity to result in significant impairment in personal, family, social, educational, occupational or other important areas of functioning and would normally have been evident for at least 12 months. According to WHO (2018), 'gaming disorder' was included within the ICD-11 due to evidence provided by experts from a variety of disciplines which highlighted the dangers and risks of video gaming, as a form of addiction. Furthermore, 'internet gaming disorder' was included within the DSM-5 as the American Psychiatric Association recognises that video gaming can cause "significant impairment or distress" in a way which is limited to video gaming, and

excludes problems associated with other (technology-based) forms of addiction, such as internet addiction, online gambling or social media addiction (Petry et al, 2014). Hellman, Schoenmakers, Nordstrom, and Van Holst (2013) completed a cross disciplinary review to investigate whether excessive and compulsive online video gaming could be considered as an addiction. Their study concluded that a de-medicalisation of the concept of addiction is potentially required in order to consider different types of addictions. The study also claimed that there does seem to be a form of problematic online gaming behaviour, and such problematic behaviour does bear similarities to other addictions, such as drug addictions (in form). Furthermore, further evidence of a distinction between video game addiction and, the more general, internet addiction was provided by Rehbein and Mößle (2013). Their school survey of secondary school aged students revealed that internet and video game addiction can be regarded as two distinct nosological entities, and that there is a clear differential impact (on those affected) between the two forms of addiction.

As inferred from the benefits and the downsides of video games explored earlier, along with this information, it would appear that (out of all the potential risks associated with video gaming) video game addiction is the greatest concern. The survey completed by Common Sense Media (2013) revealed that the time CYP typically spend playing video games has increased over a relatively short space of time (within U.S based populations) and research by Griffiths, Kuss and King (2012) found a similar increase within CYPs time spent playing ‘massively multiplayer online games’ (MMOG). Griffiths, Kuss and King believe this increase in time spent playing is associated with the characteristics of MMOG based games; MMOGs involve large numbers of players, from hundreds to thousands, on the same server with longer lasting missions/objectives (some being never ending), encouraging the player to continue playing for longer hours. Also responsible for this increase in time spent playing is the improvement in the technology behind video gaming. Dale and Green (2017) noted how the improvements in video game technology (storage capacity and the visual quality) has allowed video games to develop large, immersive, rich and

vibrant worlds/maps where players can explore for hundreds of hours before they come close to exhausting the available content. While there are existing studies relating to 'internet gaming disorder' in UK populations, as highlighted by Griffiths et al (2016), discussed earlier, there is still a gap within the literature to explore the views of CYP's within the UK, in greater depth, regarding their use of video games, their motivations for playing, the social benefits/disadvantages of playing online based video games and how they feel playing video games impacts upon their lives.

2.7 Why is video gaming relevant to professionals who work with young people and their parents?

If there is any impact from playing video games upon young people this would mean that the use of video games by young people is relevant to schools, teaching staff and education-based professionals; particularly any social impact(s). As we know that video gaming is linked with problematic behaviours (Van Rooij, Schoenmakers, & Van De Mheen, 2017), such an issue should be dealt with in the same way as other addictions (such as the misuse of illegal substances). I believe that with the additional knowledge we are slowly acquiring around how CYP use video games, more can be done to investigate and respond to how video games are used. While problematic video gaming may not be a cause for concern for many CYP, for those (CYP) whose thoughts are preoccupied with video gaming, support should be provided. As discussed, research has also denoted that for CYP under ten years of age playing violent video games, or video games with an age rating greater than their own, is a potential risk (Cooper, & Mackie, 1986; Griffiths, 1999). For these young people, the use of video games can increase instances of aggressive behaviour while exposing them to inappropriate content such as adult language, sexual content, violent content and themes intended for older CYP or adults. Additionally, research has highlighted that high levels of video game use/exposure can lead to other aspects of CYP's lives being negatively impacted. This includes sleeping patterns/amount of sleep, school (academic) performance, mood, homework completion as well as a reduction of engagement within other activities (Brunborg, Mentzoni & Froyland, 2014; King et al, 2013; Van Rooij,

Schoenmakers, & Van De Mheen, 2017). While it is important to recognise that time spent playing video games over other activities is not necessarily bad (as video games are not inherently dangerous), it is important to consider the benefits of the activities that video gaming could be replacing. If for instance activities such as revision or homework are being replaced, this can evidently impact upon academic attainment (Davies, 2017; Brunborg, Mentzoni & Froyland, 2014) and is therefore useful to be aware of. Additionally, if video gaming is replacing physical activities, then it is important to consider whether these physical activities were a previous source of exercise for the CYP which they are now missing out on.

The research I intend to conduct will seek to gain both quantitative and qualitative information to understand CYP use of video gaming. Specifically, this research will focus on CYP's motivations for video gaming, how they are using video games, and their perceived implications (such as the implications upon their social interactions, their learning, and their general wellbeing). This project will also aim to ascertain the activities CYP may engage with if video gaming was not an option, to determine how video gaming impacts upon other activities. I believe that gaining insight into CYP's perceptions of video gaming, particularly online video gaming, will allow for greater recognition of the benefits and disadvantages of video gaming, and the extent to which CYP demonstrate awareness over excessive use. This information along with questions concerning the time CYP spend thinking about video games (preoccupied thoughts) will provide insight regarding the influence of video games upon the CYP who play them. Equally, I believe this research will be an opportunity to speak with CYP who do not play video games to ascertain whether they perceive they are benefitting or missing out from not having access to video games; such as the social aspect, bragging rights (concerning ownership of the latest game/console), and their thoughts of CYP who play video games.

Chapter 3: Methodology

Conducting research requires a thorough and meaningful research design in order to avoid several pitfalls (Drew, Hardman & Hosp, 2007). As De Vaus (2001) highlighted, a clear research design should reduce the likelihood of invalid inferences from being drawn from correlations, they should reduce potential ambiguity, and they should support the process of theory building. I have used this advice to guide me through the process of designing this research.

3.1 Research Aims: restated

- To identify how and when CYP are playing video games (what devices they are using, whether portable video gaming using mobile devices is common, and how often CYP are playing).
- To understand how much time CYP spend thinking about video gaming when they do not have immediate access. Do CYP think about video gaming when they are at school or during learning activities?
- To identify CYP's motivation for video gaming and to what extent CYP play video games for social reasons? Do online video games provide additional opportunities for CYP to socialise/interact? How do CYP perceive the social interactions that can take place through video games?
- To explore how CYP reflect upon their use of video games, including any perceived advantages or disadvantages of video gaming.

These research aims provide a general and broad scope of the research. In order to move from, what could be described as, the abstract level to a more distinct level, research questions are required to provide the level of specificity required within social science research (Drew, Hardman & Hosp, 2007).

Furthermore, research questions provide direction and allow the researcher to maintain focus and, in doing so, prevent the research from crossing into areas that fall outside the scope of interest, avoiding ambiguity.

3.2 Research Questions

The experience and process of writing a literature review within this thesis allowed me to understand the current research which exists in relevant research areas, and subsequently this process supported the formation of my research questions.

1) **How are CYP accessing video games and what are their behaviour patterns during their use of video games?**
   As discussed, the developing focus on issues such as gaming disorder conveys the concern regarding the time CYP spend video gaming. Obtaining this information, using a population of CYP based in the South West of England can provide some insight as to how many (or what percentage of) CYP are spending too much time playing video games. While such information has been gathered as part of other research (particularly in US populations; Gentile, 2009) gathering such information within this research can provide further context around not only how often CYP play, but what they play, who they play with, and why they play video games.

2) **To what extent is video gaming impacting upon CYP's lives (including preoccupied thoughts and problematic use/behaviour)?**
   It is important to recognise that addictive/problem behaviours are not solely based on the time people dedicate to certain activities (Kranzler & Li, 2008). There are other factors which need to be considered, and this research will aim to identify how video gaming impacts upon other aspects of CYPs lives; such as how CYPs thoughts are preoccupied with video gaming, which could impact upon their interactions and learning.

3) **Why do CYP play video games and to what extent do CYP use video games (or video game devices) as a medium for social interactions?**

   While there is plenty of existing research regarding CYPs use of video games (Gentile, 2009), there is a gap with regards to the social impact of video gaming, and the various social motivators as to why CYP play video games. This research aims to analyse how video gaming impacts upon social interactions for CYP and the extent to which video gaming is used as a social platform.

4) **How do CYP reflect upon the impact of their, and others, use of video games?**

   There is a distinct lack of qualitative research into how CYP reflect upon their use of video games, and the impact they feel it has on their lives (advantages and disadvantages). Such information requires a qualitative approach in order to ascertain rich and detailed responses. I believe such information will provide further context around the quantitative data within this research project.

3.3 Selecting an Appropriate Research Method

The research method used is a mixed method approach, split into two phases; Phase 1, quantitative and Phase 2, qualitative. The justification for choosing this approach is due to the variety of data to be collected based on the research questions. The information relating to how often CYP play video games, how they use them, when they use them and how long they play for (at a time) can all be gathered through a quantitative approach; which will allow for a greater number of participants compared with a qualitative approach of gathering the same data (Drew, Hardman & Hosp, 2007). The use of a nomothetic tool, in this case questionnaires, was used to gather the quantitative data within Phase 1. Phase 2 employed the use of semi structured interviews to gather rich and

detailed information from participants which quantitative research gathering techniques do not necessarily allow for (Drew, Hardman & Hosp, 2007). Semi-structured interviews were chosen (as the data collection method) as they provide some flexibility, while retaining structure. Semi-structured interviews are recommended when the researcher is unlikely to get another chance to interview the same participants (Bernard, 1988). Furthermore, semi-structured interviews are designed to elicit the interviewee's thoughts rather than promoting preconceived ideas (Brown & Danaher, 2019), when executed appropriately.

I believed the combination of both phases (using a mixed method approach) would yield insightful and meaningful data which could be used to analyse participant's behaviours and their motivations with regards to video gaming. The data obtained from Phase 1 was essential for devising the questions within the interviews as part of Phase 2. Conversely, I was interested as to how the results from Phase 2 would influence my interpretation of the Phase 1 findings. Ultimately, the mixed methods approach adopted a 'sequential explanatory' design (Creswell, Clark, Gutmann & Hanson, 2003); Quantitative data was initially collected within Phase 1, this data informed the design of Phase 2, and the qualitative results assisted in explaining the findings of the quantitative information. Without adopting a mixed methods approach, this process of using one method to inform the other would not have been possible. Furthermore, I was able to select the most relevant tools to address the research questions while ensuring that the research project was not restricted to the separate tools available to specifically qualitative or quantitative approaches (Johnson & Onwuegbuzie, 2004).

3.4 Ethical considerations for Phase 1 and Phase 2

Ethical approval for the research project was granted by the University of Exeter Ethics Committee. During the construction and designing of the research project, the professional codes of conduct (from the HCPC and BPS) were taken into consideration. A senior member of staff from each primary and secondary school was approached regarding their potential involvement within

the research. All these schools were settings where I had already established a professional relationship as part of my educational psychology placement. Please refer to appendix 9 for the certificate of ethical approval.

3.4.1 Consent

Details regarding the layout and process of the research project were provided to school's via an information sheet/consent form. The information sheet identified the responsibilities of the researcher and the participating educational settings. The opt in consent form detailed information regarding how the data would be used, how it would be stored, and made it clear that participants could choose to withdraw from the project at any point. The same information was provided to participants and their parents/carers via two additional, separate consent forms. The consent forms contained contact details of the researcher, along with the researcher's university supervisor (should the participants, the settings, or the participant's parents have any questions). The questionnaire provided to participants as part of Phase 1 included an additional reminder to that they could withdraw from the research at any point and that they have the opportunity to tell a member of staff, should they have changed their mind regarding their participation. Within Phase 2 of the research, participants were reminded before proceeding that they were able to withdraw if they had wished to do so. Please refer to appendix 1 for copies of the information sheet/consent forms.

3.4.2 Potential Harm

Consideration was made regarding the potential harm participants could experience from their participation. This research project did not involve/require any young people having to play video games, and therefore, there were no concerns regarding exposing participants to mature content intended for older children or adults, which research (using US and Japanese populations) has demonstrated can have negative effects (Anderson et al, 2008); although others have argued such negative effects have been overestimated (Ferguson & Kilburn, 2010) . Likewise, no specific mature content was raised by the

researchers during Phase 2 of the project. The only way such content could have been discussed was if participants chose to discuss such details about the titles they play. As the interviews were conducted on a one to one basis, there was no risk of the participants exposing their peers to potentially inappropriate content. The focus on how, when and why young people play video games sought to avoid putting the participants at any sort of emotional risk. The researcher did not share information, or prior research, which discussed any potential risks of video games with participants.

With reference to Phase 2 (semi- structured interviews), special consideration was taken due to the nature of conducting interviews and the potential topics participants may discuss, such as: consequences, identity, addiction and relationships. I referred to the book titled: *Doing Interviews* (Kvale, 2018), specifically the chapter entitled “Ethical Issues of Interviewing”, to inform my practice and to help me consider the moral and ethical aspects of interviews within research.

As part of the project, individual reports have been created for each of the schools involved. The reports have highlighted any specific concerns regarding safeguarding issues, such as a high number of CYP playing video games greater than their chronological age. These reports provide specific recommendations for each school based on the prevalence of any such issues and, additionally, I have offered training to schools should they wish to be better informed of the potential issues video gaming can pose for CYP. For instances where there are concerns regarding levels of serious video game preoccupation, advice and feedback will be provided for those specific schools to ensure that they are adequately supported to help those students/families.

3.5 Philosophical orientation of the research

The use of a mixed methods approach is argued to provide a bigger picture, and improved insight compared with other methodological approaches to research (Denscombe, 2006). Cohen, Manion and Morrison (2011) argued that a mixed methods design assumes a pragmatist philosophical approach, and I would argue that this approach is used within this research. Before adopting a

pragmatist approach, I had considered dialectical pluralism as the philosophical orientation within this research due to the metaparadigms' support for mixed methods research (Johnson, 2017). Johnson described dialectical pluralism as an 'intellectual process' due to the way in which perspectives of multiple (the dialectical aspect of the phrase) paradigms are considered and synthesised to overcome differences, and to thrive on tensions between multiple approaches. However, within this research I felt that a pragmatic approach was (slightly) more favourable due to the action focused stance which pragmatism adopts. The pragmatist approach implies that concepts are only relevant when they support or result in action (Kelemen & Rumens, 2008) and that the knowledge sought within research is more important than the methodological assumptions. This research is focused on utilising 'what works' in addressing the research questions (Johnson & Onwuegbuzie, 2004) and as such relies upon philosophical assumptions to a lesser extent to ensure that that data collection methods (which address the research questions) are not limited. Ultimately, it is the research questions which are the most important determinant(s) of the philosophical approach (Cresswell & Clark, 2011). While pragmatism does not completely deny the relevance or importance of philosophical underpinnings within research, my understanding is that pragmatism does not allow epistemology or ontology to be given priority over method. Pragmatism embraces aspects of positivist and constructivist approaches, rather than rejecting them (Teddlie & Tashakkori, 2009).

3.5.1 Ontology

Ontology concerns the notion of 'being' and has been described by Snape and Spencer (2003) as the nature of the world and what we can know about it. While quantitative research typically views reality through objectivism or positivism (Saunders, Lewis, Thornhill & Wang, 2009), qualitative research typically assumes reality is constructed (constructivism) by the researcher (Cresswell, 2009). The pragmatic approach is able to consider both elements of reality, and as such, this is the position identified within this research project. Considering perspectives, and the differences, between objectivism (or

positivism) and constructivism could be argued to allow for a richer understanding of what is meant by ‘being’.

3.5.2 Epistemology

This questions our understanding and the nature of knowledge (Miller and Brewer, 2003) in addition to acknowledging that whatever is being researched, is susceptible to influence by the researcher. With regards to this study, the stance assumed is that knowledge is meaningful and practical depending on the context in which it is considered. Furthermore, truth can be determined by recognising knowledge which enables successful action or responses. This research is focused on problem solving and seeking to inform future practice through its endeavours to gather and analyse data. Furthermore, within this research, both qualitative and quantitative methods are utilised collaboratively to address ongoing concerns regarding video gaming for CYP.

Chapter 4: Phase 1 Methods

4.1 Sample

A total of 214 children/adolescents completed a questionnaire as part of Phase 1. Of these 214 participants, 138 were primary school aged, while 76 were secondary school aged. 124 of the participants were male while 90 were female, and the participants fell into four different school years: Year 4= 53, Year5= 85, Year 8= 44 and Year 9= 32. Participants were from seven different settings; five of these were primary schools, and two were secondary schools. Two additional primary schools and one additional secondary school had previously agreed to participate within the research, unfortunately due to other commitments and difficulties with capacity/workload, they were unable to participate. The schools selected within this research were reflective of a diverse demographic/population, due to the differences in each school's location. However, it should be acknowledged that of the seven schools involved, most (four) were located in areas of social deprivation (three of the primary school settings, and one of the secondary schools). This contextual information is relevant due to evidence which has noted that young people from deprived areas within the UK are more likely to engage with greater levels of screen use (digital devices) compared with young people from more affluent, or less deprived areas (Thomas et al, 2019). Therefore, screen use of the participants within this study may be greater than the average screen use of a CYP within the UK.

There were important criteria, along with limitations, which influenced the selection of the four year groups used within the research. I felt it was important to include participants from both primary and secondary schools and, due to time limitations, it was necessary to specify two year groups in each school for the research. Based on my experience of working with CYP, alongside consultations with primary school teachers, I felt that children in key stage two (aged seven or older) would be mature enough to answer questions regarding their behaviours and their motivations. Additionally, children in key stage two

(and older) are also at the age where titles rated ‘7’ are relevant (PEGI ratings include: 3, 7, 12, 16 and 18), so they have access to a wider range of video games. I selected Year 8 and 9 students because they are younger than the adolescents/adults which the ’16’ and ‘18’ PEGI video games are intended for, and so information regarding how many young people are playing video games with a PEGI rating greater than their own age will be more relevant for this age group. Furthermore, excluding students in year six and year seven will maintain a large enough age gap between the primary and secondary students and potentially allow for greater differences to be observed between the data. Avoiding the use of year six students is preferable due to their impending SAT exams and transition to secondary school; both of which restrict time and access to pupils (Locker, & Cropley, 2004; Lucey, & Reay, 2000).

Table 1

School Year	Frequency	Percentage
4	53	24.8%
5	85	39.7%
8	44	20.6%
9	32	14.9%
Total	214	100%

Table 2

Gender	Frequency	Percentage
Male	124	57.9%
Female	90	42.1 %
Total	214	100%

4.2 Sampling method

Due to my preference for certain participant criteria, this research used a stratified sampling method within Phase 1. Participants were selected based on

their school year, including school years 4 and 5 from the primary schools, and years 8 and 9 from the secondary school settings.

4.3 Phase 1 design considerations

Questionnaires were chosen as the method for data collection as they allow statistical comparisons between individuals or different groups of people (Bloch, Phellas & Seale, 2011). Questionnaires allowed the researcher to gather responses from participants across different settings without needing to be present, which was useful for maximising time. Paper copies of the questionnaire were used as research has demonstrated that the response rate for online questionnaires are significantly lower (Kongsved. Basnov, Holm-Christensen & Hjollund, 2007). Equally, after briefing members of staff about the research, I felt it was important for the participants to complete the questionnaires in school so that an informed adult could respond to any questions the participants may have had.

The questionnaire contained 35 items,15 of which were devised by myself (will be discussed in detail below), to address the Research Questions 1, 2 and 3. These 15 items were designed on the basis of: my knowledge of the currently published literature, consultations with my research supervisors at the University of Exeter, and following conversations with teachers who were interested in contributing towards the research. These 15 questions aimed to capture how young people play video games (what devices they are using, whether they are playing alone and how long they play for), when they play them and what motivates them to play video games; with the intention of further exploring their motivation(s) through Phase 2. The other twenty questions were derived from an adapted version of the IAT (internet addiction test) created by Young, 1998. These adapted questions (of the IAT) were used as a survey, to explore the nature/experience of computer use in young people to be used for research purposes and are, therefore, not considered a psychometric instrument.

Before administering the questionnaire, several draft versions were reviewed through consultation and written feedback by three teachers (of Year 4, 5 and 8

classes). The teachers kindly provided feedback regarding the suitability and accessibility of the questions (Please refer to appendix 3 for this feedback). The questions were subsequently adjusted based on this feedback. Where appropriate and relevant, a 5-point Likert scale was used for some of the items (including all the IAT questions). As Polit and Beck (2004) described, Likert scales are one of the most widely used scaling techniques within research. Furthermore, Likert scales are regularly used in research concerned with mental health, addiction and measuring preoccupied behaviours (Svensson, 2001). Van Laerhoven, Van Der Zaag-Loonen and Derkx (2004) demonstrated that Likert scales are accessible for primary school aged children, especially when compared with other response methods. In terms of the reliability and validity of Likert scales, Croasmun and Ostrom (2011), among others, have acknowledged that Likert scales are associated with a high level of both. The questionnaires were administered by a combination of teachers, headteachers and SENCos, as they have good rapport with the participants and I anticipated the children would respond to the questionnaire better if it was explained to them by a familiar person.

4.4 Questionnaire construction:

4.4.1 Construction of the first 15 items

In addition to the information gathered from Phase 2 of this research project, these initial 15 items within the questionnaire were set out to address research questions 1, 3 and 4. Please refer to appendix 2 for a fully copy of the questionnaire.

Table 3

First 15 items (constructed for the research project):	**Response options:**
1) How often do you play video games?	Five-point scale: 1= Never, 2= At least once a month, 3= At least once a week, 4= Once a day, and 5= More than once a day

2) Do you judge other children negatively (does it seem 'un-cool') if they can't, or choose not to, play video games?	Five-point Likert scale: 1= Definitely not to 5= Definitely
3) Do you think someone who does not play video games is missing out?	Five-point Likert scale: 1= Definitely not to 5= Definitely
4) How long do you usually play video games for at a time (during one sitting)?	Five-point scale: 1= Half an hour or less, 2= Between half an hour to an hour, 3= Between an hour to three hours, 4= Between three to six hours, and 5= Over six hours
5) How often do you play <u>online</u> video games? (Online video gaming refers to video games which are played over the internet, usually with or against other players)	Five-point scale: 1= Never, 2= At least once a month, 3= At least once a week, 4= Once a day, and 5= More than once a day
6) How long do you usually play <u>online</u> video games for at a time (during one sitting)?	Five-point scale: 1= Half an hour or less, 2= Between half an hour to an hour, 3= Between an hour to three hours, 4= Between three to six hours, and 5= Over six hours
7) What is the PEGI rating (age rating) of the game(s) you play the most?	Five response options included: 3, 7, 12, 16, 18
8) How important is video gaming for allowing you to speak with your friends?	Five-point Likert scale: 1= Not important at all to 5= Very important
9) Do you feel that playing video games has a good or bad effect upon how people behave?	Five-point Likert scale: 1= It has a very bad impact to 5= It has a very good impact

10) What are your main reasons for playing video games? (Please select all responses that are relevant to you)	Multiple response options included (simplified): fun, to speak with friends, competition, happiness, boredom, challenge, or 'other reasons'
11) What types/genre of video games do you tend to play? (Please select all responses that are relevant to you)	Multiple response options included: action/adventure, shooter, racing, MMO (massively multiplayer), role play, strategy, sports, battle royale, or 'other'
12) What device(s) do you use to play video games? (Please select all responses that are relevant to you)	Multiple response options included: PlayStation, Xbox 360/One, PC, Nintendo Switch/Wii U, handheld console, tablet, smartphone, or 'other'
13) What video games do you prefer to play?	Three response options included: online multiplayer video games, singleplayer video games, or split-screen video games
14) What types of online video games do you prefer to play?	Two response options included: co-operative video games or competitive video games
15) What are the most important aspects to consider when purchasing a video game? (Please select all relevant answers to you)	Multiple response options included (simplified): online capability, cost, quality of missions, amount of content, whether friends have the game, or whether the game is part of a series

Participants were told to select which answer was most appropriate or relevant. For certain questions, participants were encouraged to select all responses which were relevant to them and, additionally, they had the opportunity (where no response was appropriate) to write their own response in the 'other' or 'other reason' box.

4.4.2 Reliability of the 15 items

The 15 items (above) focused on different constructs and made use of a variety of measures (ordinal, nominal and scale). I would argue that these 15 items are multidimensional, hence the Cronbach's Alpha of 0.4. However, items 1, 5, 6 and 7 were devised to identify how much time CYP spend video gaming, and I would argue they measure the same construct. The Cronbach's Alpha for these four items indicates good internal consistency (4 items; α= 0.89). While I recognise the importance of test re-test reliability for identifying whether the questionnaire would yield the same results if used repeatedly with the same group, practicality challenges meant this was not possible; the nature of this research meant that both time and access to participants were restricting factors. If this project was extended, it would be important to look at the test re-test reliability of the 15 items.

4.4.3 Adapting Young's (1998) Internet Addiction Test

In order to answer this project's Research Question 2, the questionnaire required questions which specifically addressed those key points, with regards to preoccupied thoughts/problematic use of video games. As mentioned, an adapted version of Young's (1998) Internet Addiction Test (IAT) was used within this research project as a survey to focus on CYP's preoccupation with video gaming (rather than a psychometric tool). The IAT consists of 20 items for participants to complete on a five point Likert scale. The participants could select answers ranging from 1 'not at all' to 5 'always'. Please refer to appendix 2 for a copy of the full questionnaire.

For this project I wanted a set of items which have been reliably used to identify the cognitive functions associated with problematic behaviours and preoccupied thoughts, and as the IAT was originally adapted from the DSM- IV criteria for pathological gambling, (American Psychiatric Association, 1994) and for problematic use of social media (Court, 2016) the IAT seemed an appropriate and transferable tool. While I was aware of other, more standardised, measures of video game addiction, such as the 'Videogame Addiction Scale for Children' (Yilmaz, Griffiths & Khan, 2017), I selected the IAT as the research tool (to be adapted) for several reasons. Firstly, I felt that the VASC, and other tools, would be less applicable to preoccupation compared

with the IAT and, furthermore, I felt that using such tools would not bring particularly new or insightful information to the current range of literature concerning video gaming. The IAT provides a clear measure of preoccupied thoughts, and the descriptions within the scoring framework link well with problematic use of an activity/item and measuring whether that activity/item is having a negative impact upon someone's life. When linking this information with the evidence that the IAT has been successfully used to identify the cognitive functions associated with problematic behaviours/preoccupation, I feel that using an adapted version of the IAT as the research tool is justified.

I adapted the IAT to focus on children's behaviours and thoughts regarding their use of video games, and as is illustrated in the figure below, the structure of the original questions remains the same; adaptations made were minimal, and mostly language based. Revisions were made to ensure the items were accessible to children and to change the focus from internet use, to video gaming. The revisions to the IAT items reflect the changes Court (2016) adopted to investigate CYP's use of social media. Goldstein et al (2009) and Wise (1996) acknowledged specific regions in the brain assumed to be associated with problematic behaviours and preoccupied thoughts. Furthermore, they stated how such brain activity is consistent regardless of addiction type, thus supporting the suitability of using an adapted version of the IAT with regards to video gaming. Following the revisions to the IAT, the 20 item survey (latter part of the questionnaire) used within this research has been titled the 'Video Gaming Preoccupation Questionnaire', due to the focus on preoccupied use of video gaming rather than addiction.

Table 4

Item Number (in terms of order within the full 35 item questionnaire)	Video Gaming Preoccupation Questionnaire	Original IAT questions (Young, 1998

16	**How often do you find that you've spent longer playing video games than you originally planned?**	How often do you find that you stay online longer than you intended?
17	**How often does playing video games get in the way of jobs your parents have asked you to do?**	How often do you neglect household chores to spend more time online?
18	**How often do you prefer talking to others through online video gaming to talking with others in person?**	How often do you prefer the excitement of the Internet to intimacy with your partner?
19	**How often do you form new friendships with people through online video games?**	How often do you form new relationships with fellow online users?
20	**How often do your family or friends complain about how much time you spend playing video games?**	How often do others in your life complain to you about the amount of time you spend online?

21	**How often do you feel your school work is worse because of the amount of time you spend playing video games?**	How often do your grades or school work suffer because of the amount of time you spend online?
22	**How often do you play video games before doing something else that you need to do?**	How often do you check your e-mail before something else that you need to do?
23	**How often does the amount of work you complete suffer because of video gaming?**	How often does your job performance or productivity suffer because of the Internet?
24	**How often do you become annoyed or secretive when someone asks about how much time you spend playing video games?**	How often do you become defensive or secretive when anyone asks you what you do online?
25	**If you are feeling upset about something, how often do you think about playing**	How often do you block out disturbing thoughts about your life with

	video games to make you feel better?	soothing thoughts of the Internet?
26	**How often do you find yourself thinking about when you will next be able to play video games again?**	How often do you find yourself anticipating when you will go online again?
27	**How often do you feel that life without video games would be boring, empty and joyless?**	How often do you fear that life without the Internet would be boring, empty, and joyless?
28	**How often do you snap, shout, or become annoyed if someone bothers you while you are playing video games?**	How often do you snap, yell, or act annoyed if someone bothers you while you are online?
29	**How often do you not get enough sleep because of playing video games?**	How often do you lose sleep due to late-night log-ins?
30	**How often do you find yourself thinking about playing video**	. How often do you feel preoccupied with the Internet when

	games when at school?	off-line, or fantasize about being online?
31	**How often do you find yourself saying “Just a few more minutes” when playing video games?**	How often do you find yourself saying "just a few more minutes" when online?
32	**How often do you try to cut down the amount of time you spend playing video games and fail?**	How often do you try to cut down the amount of time you spend online and fail?
33	**How often do you try to hide how long you’ve been playing video games?**	How often do you try to hide how long you've been online?
34	**How often do you choose to spend more time playing video games instead of going out with others?**	How often do you choose to spend more time online over going out with others?
35	**How often do you feel sad, moody or nervous when you are not playing video games,**	How often do you feel depressed, moody, or nervous when you are off-line, which

	which goes away once you start playing again?	goes away once you are back online?

The original scoring framework, devised by Young (1998), was used within this project. The original scoring framework was initially used to determine the severity of addiction for pathological gambling, internet use, and social media use (Court, 2016). The accumulative scores, provided by the Likert scales, were used as an indicator for severity of addiction (Young, 1998). Previous adaptations to the IAT would indicate that the test is generalisable to other forms of addiction and due to the similarities between internet use and video gaming (Holtz & Appel, 2011), I felt that using the scoring framework would be beneficial within this research project. Please refer to appendix 4 for a copy of the scoring framework.

4.4.4 Reliability of Adapted IAT items

Laconi, Rodgers and Chabrol (2014) acknowledged that the IAT is a commonly used measure of problematic behaviours, and one which has been thoroughly evaluated. Their critical review reported that the IAT's test–retest reliability was satisfactory (between r = .73 and r = .88) while concurrent validity was good or excellent (from r = .46 to r = .90). The adapted version of the IAT used within this research was found to be highly reliable (20 items; α= 0.89).

4.4.5 Refining the questionnaire

As discussed, the questionnaire was reviewed by three teachers (of Year 4, 5 and 8 classes) to determine whether the questionnaires would be accessible for the children it was intended. The feedback from the teachers resulted in some minor changes to the phrasing of certain items, and while I initially considered using two separate questionnaires, one for primary school students and one for secondary school students, the teachers and myself agreed that the final version was appropriate for all the students involved. The suggested revisions can be found in the appendices (appendix 3).

The questionnaires were piloted with four children; two children who were in Year 4 and two children who were in Year 9. These children were known to me outside of my professional role. The justification for piloting the questionnaire was to identify whether the questionnaire was accessible for both primary/secondary aged students and to identify how long participants required. I was present during the pilot questionnaire administration to answer any questions the children had. No changes were made based on the feedback from the participants. The participants had no questions relating to the content of the questionnaire, other than some clarification points around whether to "circle or tick" their answers, however, I felt that these were points which the staff who would be administering the questionnaires in the schools could manage.

4.5 Materials

The questionnaires were created as word documents, before conversion to PDF for printing. The questionnaires were printed onto A4 plain paper and stapled together. The participants were asked to circle their response; pens/pencils were provided to the students by the school staff.

4.6 Procedures

Once the identified schools had confirmed their interest, a face to face (or telephone) conversation took place to fully explain the details of the research, how to answer questions the students may have, and how the questionnaires needed to be administered. I informed these key members of staff that they were able to contact me by phone or email should they have had any further questions. A digital copy of the questionnaire was sent to each school so that any member of staff involved could make themselves familiar with the questions.

Questionnaires were printed and given to the key member of staff in each setting. The key adults in each school supervised the children as the questionnaires were being completed in dedicated time slots, before informing

me that they had been completed.

4.7 Data analysis procedure

The questionnaires were allocated a code based on the school. Each participant's data can be traced back to their completed questionnaire (only by me), should they want their data removed. This allocation process took place as the information from each questionnaire was manually entered into the Statistical Package for the Social Sciences (SPSS) for analysis. The analysis involved identifying descriptive frequencies of the participant's responses.

Chapter 5: Phase 1 Findings

This section provides a summary of the results from Phase 1. The results from Phase 1 are divided into sections based on which research question they aimed to address. Research Question 4 will be mostly addressed through Phase 2, however, there are some items within the questionnaire which contributed towards this Research Question 4. Within the results descriptors references will be made to CYP, it is important to note that this phrase is only reflective of CYP aged between 8-10 and 12-14 within this project's sample and, as such, the phrase is intended to be viewed as an abbreviation; the results do not reflect how children and young people of all ages would respond. When referring to 'primary aged CYP' or 'secondary aged CYP', the results are only reflective of CYP aged within the age bands within this sample. Missing data (instances where participants did not provide an answer) were excluded from both the descriptive statistics and the inferential tests.

5.1 Addressing Research Question 1: How are CYP accessing video games and what are their behaviour patterns during their use of video games?

Table 5

How often do CYP play video games?

Response	Frequency	Percent
Never	19	8.9%
At least once a month	18	8.4%
At least once a week	49	22.9%
Once a day	59	27.6%
More than once a day	69	32.2%

Total	214	100

The above table (table 5) illustrates the responses from the question 'How often do you play video games?'. Participants could respond with five options. Figure 1, presented below, provides a visual representation of the results above. Figure 1 highlights how 32.2% of the participants play video games more than once a day. The results indicate that most participants (59.8%) play video games at least once a day. Only 8.9% of participants never play video games, 8.4% play at least once a month, while 22.9% of participants play once a week (or at least once week).

Figure 1

How often to CYP play video games?

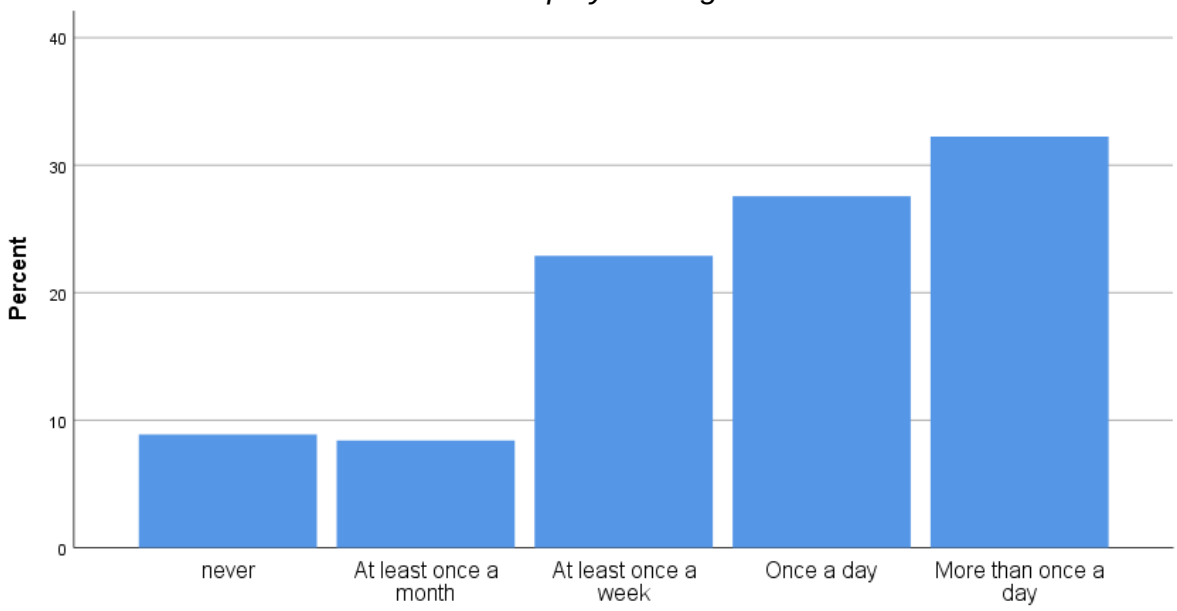


Table 6

How often do CYP in school years 4 and 5 play video games?

Response	Frequency	Percent
Never	11	8.0
At least once a month	8	5.8

At least once a week	31	22.5
Once a day	37	26.8
More than once a day	51	37.0
Total	138	100.0

The above table (table 6) illustrates the responses from the question ‘How often do you play video games?’ for the primary school aged participants.

Table 7

How often do CYP in school years 8 and 9 play video games?

Response	Frequency	Percent
Never	8	10.5
At least once a month	10	13.2
At least once a week	18	23.7
Once a day	22	28.9
More than once a day	18	23.7
Total	76	100.0

Table 7, presented above, illustrates the responses to the question ‘How often do you play video games?’ for the secondary school aged participants.

Table 8

Mann-Whitney Test comparing responses from Primary School aged participants with Secondary School aged participants to the question ‘How often do you play video games?’

Ranks		
School Type (Primary School/ Secondary School)	Mean Rank	Sum of Ranks
Secondary	95.70	7273.00
Primary	114.00	15732.00
Total		

Table 9

Test Statistics corresponding to table 8

	How often do CYP play video games?
Mann-Whitney U	4347.000
Wilcoxon W	7273.000
Z	-2.143
Asymp. Sig. (2-tailed)	.032

a. Grouping Variable: School Type (Primary School vs Secondary School data)

A Mann-Whitney test (tables 8 and 9) was used to compare the responses from the Primary School aged participants with the Secondary School aged participants to the question *'How often do you play video games?'*. The test indicated that Primary School aged participants played video games significantly more frequently compared with the Secondary School aged participants (U=4347, p= .032).

Table 10

How often do male CYP play video games?

Response	Frequency	Percent
Never	4	3.2
At least once a month	5	4.0
At least once a week	23	18.5
Once a day	42	33.9
More than once a day	50	40.3
Total	124	100.0

Table 10, presented above, illustrates the responses to the question ‘How often do you play video games?’ for the male participants.

Table 11

How often do female CYP play video games?

Response	Frequency	Percent
Never	15	16.7
At least once a month	13	14.4
At least once a week	26	28.9
Once a day	17	18.9
More than once a day	19	21.1
Total	90	100.0

Table 11, presented above, illustrates the responses to the question ‘How often do you play video games?’ for the female participants.

Table 12

Mann-Whitney Test comparing responses from male and female participants to the question ‘How often do you play video games?’

Ranks

Gender	N	Mean Rank	Sum of Ranks
Male	124	124.84	15480.50
Female	90	83.61	7524.50
Total	214		

Table 13

Test Statistics corresponding to table 12

	How often do CYP play video games?
Mann-Whitney U	3429.500
Wilcoxon W	7524.500
Z	-4.981
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Gender

A Mann-Whitney test (tables 12 and 13) was used to compare the responses from the male and female participants to the question *‘How often do you play video games?’*. The test indicated that male participants played video games significantly more frequently compared with female participants (U=3429.5, p= .000).

Table 14

How long do CYP typically play video games for at a time?

Response	Frequency	Percent
Half an hour or less	48	22.7%
Between half an hour to an hour	82	38.9%
Between an hour to three hours	47	22.3%
Between three to six hours	13	6.2%
Over six hours	21	10%
Total	211	100

The above table provides the frequency information regarding how long CYP typically spend playing video games for at a time. Participants could respond with five options; these responses are listed in the table.

The figure below (figure 2) provides a visual representation of the data from table 14. As is highlighted, 38.9% of participants claim to play for 'between half an hour to an hour', 22.3% of participants responded with 'between an hour to three hours', and 22.7% percentage of participants responded, 'half an hour or less'. Note that 6.2% of participants responded with 'three to six hours', while 9.9% of participants responded 'over six hours. The results indicate that 77.4% of participants play video games for at least half an hour a day and that 16.2% of participants play for three hours or more a day.

Figure 2

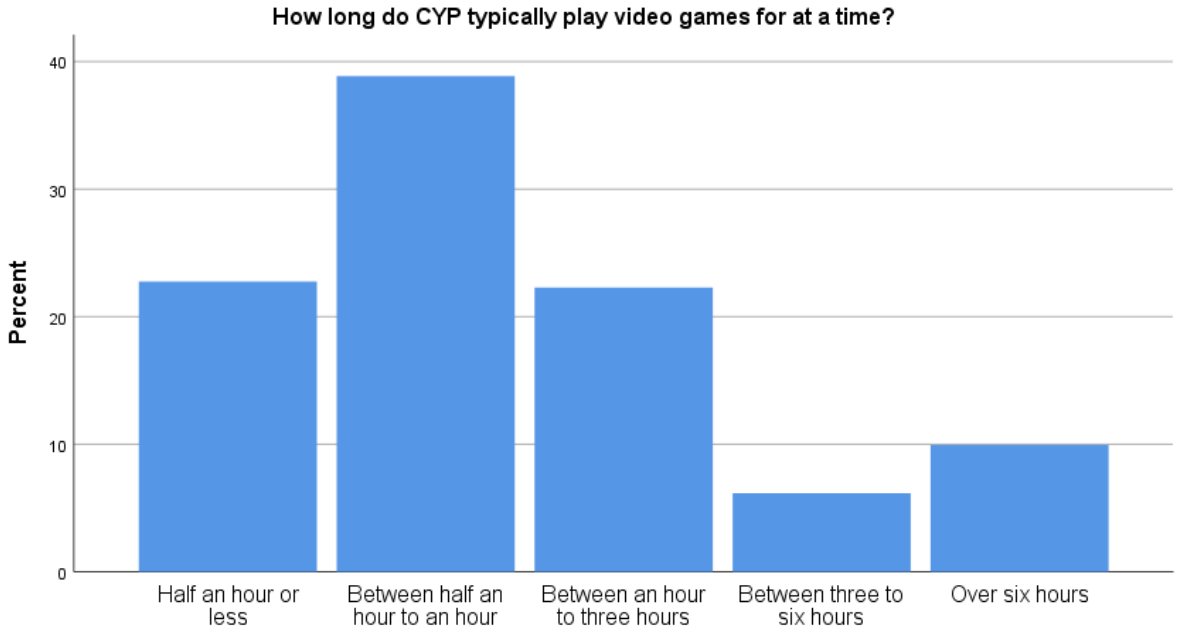


Table 15

How long do CYP in school years 4 and 5 typically play video games for at a time?

Response	Frequency	Percent
Half an hour or less	29	21.2
Between half an hour to an hour	58	42.3
Between an hour to three hours	26	19.0
Between three to six hours	10	7.3
Over six hours	14	10.2
Total	137	100.0

Table 15, presented above, illustrates the Primary School aged participants' responses to the question 'How long do you usually play video games for at a time (during one sitting)?'.

Table 16

How long do CYP in school years 8 and 9 typically play video games for at a time?

Response	Frequency	Percent
Half an hour or less	19	25.7
Between half an hour to an hour	24	32.4
Between an hour to three hours	21	28.4
Between three to six hours	3	4.1
Over six hours	7	9.5
Total	74	100.0

Table 16, presented above, illustrates the Secondary School aged participants' responses to the question 'How long do you usually play video games for at a time (during one sitting)?'.

Table 17

Mann-Whitney Test comparing responses from Primary School aged participants with Secondary School aged participants to the question 'How long do you usually play video games for at a time (during one sitting)?'

Ranks		
School Type (Primary School vs Secondary School data)	Mean Rank	Sum of Ranks
Secondary	105.49	7806.50

Primary		106.27	14559.50
Total			

Table 18

Test Statistics corresponding to table 17

	'How long do you usually play video games for at a time (during one sitting)?'
Mann-Whitney U	5031.00
Wilcoxon W	7806.500
Z	-.093
Asymp. Sig. (2-tailed)	.93

a. Grouping Variable:
School Type (Primary School vs Secondary School data)

A Mann-Whitney test (tables 17 and 18) was used to compare the responses from the Primary School aged participants with the Secondary School aged participants to the question 'How long do you usually play video games for at a time (during one sitting)?'. The test indicated there was no significant difference in the time spent video gaming (during one sitting) between Primary School aged participants and Secondary School aged participants (U=5031, p= .93).

Table 19

How long do male CYP typically play video games for at a time?

	Response	Frequency	Percent
	Half an hour or less	14	11.5
	Between half an hour to an hour	48	39.3

Between an hour to three hours	33	27.0
Between three to six hours	11	9.0
Over six hours	16	13.1
Total	122	100.0

Table 19, presented above, illustrates the responses to the question ‘How often do you play video games?’ for the male participants.

Table 20

How long do female CYP typically play video games for at a time?

Response	Frequency	Percent
Half an hour or less	34	38.2
Between half an hour to an hour	34	38.2
Between an hour to three hours	14	15.7
Between three to six hours	2	2.2
Over six hours	5	5.6
Total	89	100.0

Table 20, presented above, illustrates the responses to the question ‘How often do you play video games?’ for the male participants.

Table 21

Mann-Whitney Test comparing responses from male and female participants' responses to the question 'How long do you usually play video games for at a time (during one sitting)?'

Ranks

Gender	N	Mean Rank	Sum of Ranks
Male	122	122.63	14961.00
Female	89	83.20	7405.00
Total	211		

Table 22

Test Statistics corresponding to table 21

	'How long do you usually play video games for at a time (during one sitting)?'
Mann-Whitney U	3400.000
Wilcoxon W	7405.000
Z	-4.837
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Gender

A Mann-Whitney test (tables 21 and 22) was used to compare the responses from the male participants with the responses from the female participants to the question 'How long do you usually play video games for at a time (during one sitting)?'. The test indicated that the male participants typically played significantly more time video gaming (during one sitting) compared with the female participants (U=3400, p= .000).

How much time do CYP spend playing online video games, and how often?

Table 23

*How often do CYP play **online** video games?*

Response	Frequency	Percent
Never	60	28%
At least once a month	27	12.7%
At least once a week	31	14.6%
Once a day	47	22.1%
More than once a day	48	22.5%
Total	213	100

The above table illustrates the responses from the question 'How often do you play **online** video games?'. Participants selected one of five responses ranging from 'Never' to 'More than once a day'. Figure 3, below, provides a visual representation of the results above.

Figure 3 highlights how 22.5% of participants play video games more than once a day. The results indicate that just under half of the participants play **online** video games at least once a day (44.6%). Just over a quarter of the participants (28.2%) reported that they never play video **online** games, while 12.7% play **online** video games at least once a month and 14.6% of participants play **online** video games at least once a week. As 71.9% participants reported that they play **online** video games, and as 91.1% participants reported that they play video games (see table 5), this implies that the majority of participants who play video games are playing **online** video games (78.9%).

Figure 3

*How often do CYP play **online** video games?*

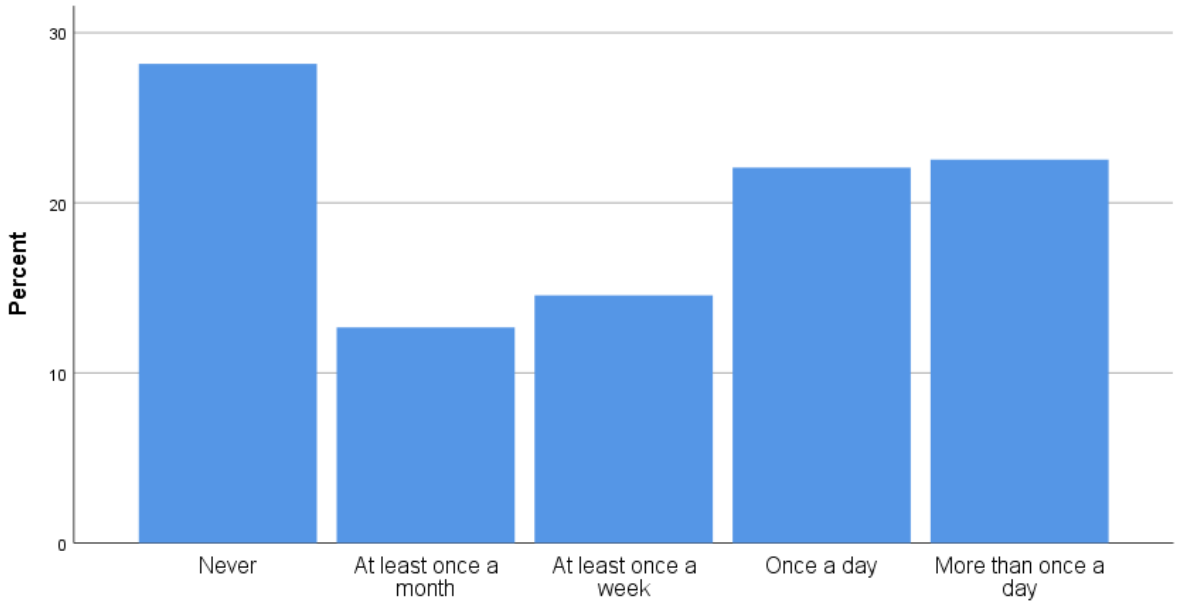


Table 24

*How often do CYP in school years 4 and 5 play **online** video games?*

Response	Frequency	Percent
Never	38	27.5
At least once a month	16	11.6
At least once a week	20	14.5
Once a day	29	21.0
More than once a day	35	25.4
Total	138	100.0

The above table (table 24) illustrates the responses from the question 'How often do you play **online** video games?' for the primary school aged participants.

Table 25

*How often do CYP in school years 8 and 9 play **online** video games?*

Response	Frequency	Percent
Never	22	29.3
At least once a month	11	14.7
At least once a week	11	14.7
Once a day	18	24.0
More than once a day	13	17.3
Total	75	100.0

The above table (table 25) illustrates the responses from the question 'How often do you play **online** video games?' for the secondary school aged participants.

Table 26

*Mann-Whitney Test comparing responses from Primary School aged participants with Secondary School aged participants to the question 'How often do you play **online** video games?'*

	Ranks	
School Type (Primary School vs Secondary School data)	Mean Rank	Sum of Ranks
Secondary	101.83	7637.50

Primary	109.81	15153.50
Total		

Table 27

Test Statistics corresponding to table 26

	How often do CYP play **online** video games?
Mann-Whitney U	4787.500
Wilcoxon W	7637.500
Z	-.925
Asymp. Sig. (2-tailed)	.35

a. Grouping Variable:
School Type (Primary School vs Secondary School data)

A Mann-Whitney test (tables 26 and 27) was used to compare the responses from the primary school aged and secondary school aged participants to the question *'*How long do you usually play **online** video games for at a time (during one sitting)?*'*. The test indicated that there was no significant difference between how frequently each gender played **online** video games (U=4787.5, p= .35).

Table 28

*How often do male CYP play **online** video games?*

Response	Frequency	Percent
Never	25	20.2
At least once a month	10	8.1

At least once a week	17	13.7
Once a day	32	25.8
More than once a day	40	32.3
Total	124	100.0

The above table (table 28) illustrates the responses from the question ‘How often do you play **online** video games?’ for the male participants.

Table 29

*How often do female CYP play **online** video games?*

Response	Frequency	Percent
Never	35	39.3
At least once a month	17	19.1
At least once a week	14	15.7
Once a day	15	16.9
More than once a day	8	9.0
Total	89	100.0

The above table (table 29) illustrates the responses from the question ‘How often do you play **online** video games?’ for the female participants.

Table 30

*Mann-Whitney Test comparing responses from the male and female participants’ responses to the question ‘How often do you play **online** video games?’*

Ranks

Gender	N	Mean Rank	Sum of Ranks
Male	124	124.01	15377.50
Female	89	83.30	7413.50
Total	213		

Table 31

Test Statistics corresponding to table 30

	How often do CYP play **online** video games?
Mann-Whitney U	3408.500
Wilcoxon W	7413.500
Z	-4.878
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Gender

A Mann-Whitney test (tables 30 and 31) was used to compare the responses from the male participants with the responses from the female participants to the question 'How often do you play video **online** games for at a time?'. The test indicated that the male participants typically played **online** video games more frequently, to a significant extent, compared with the female participants (U=3408.5, p= .000).

How long do CYP typically play online video games for at a time?

Table 32

How long do CYP typically play **online** *video games for at a time?*

Response	Frequency	Percent
Half an hour or less	89	43.6%
Between half an hour to an hour	59	28.9%
Between an hour to three hours	32	15.7%
Between three to six hours	11	5.4%
Over six hours	13	6.4%
Total	204	100

The above table (table 32) provides the frequency information regarding how long CYP typically spend playing **online** video games for at a time. Participants could respond with five options; these responses are listed in the table.

The figure below (figure 4) provides a visual representation of the data from table 32. As is highlighted, 28.9% of the participants tend to play 'between half an hour to an hour', 15.7% play 'between an hour to three hours', while 43.6% percentage of participants responded, 'half an hour or less'. Note that 5.4% of participants responded with 'three to six hours', while 5.6% of participants responded 'over six hours. The results demonstrate participants spend less time playing **online** video compared with how much time they spend playing video games. For instance, 43.6% of participants who play **online** video games reported that they play for 'half an hour or less', compared with only 22.4% of participants who play video games (generally- not specifically online).

Figure 4

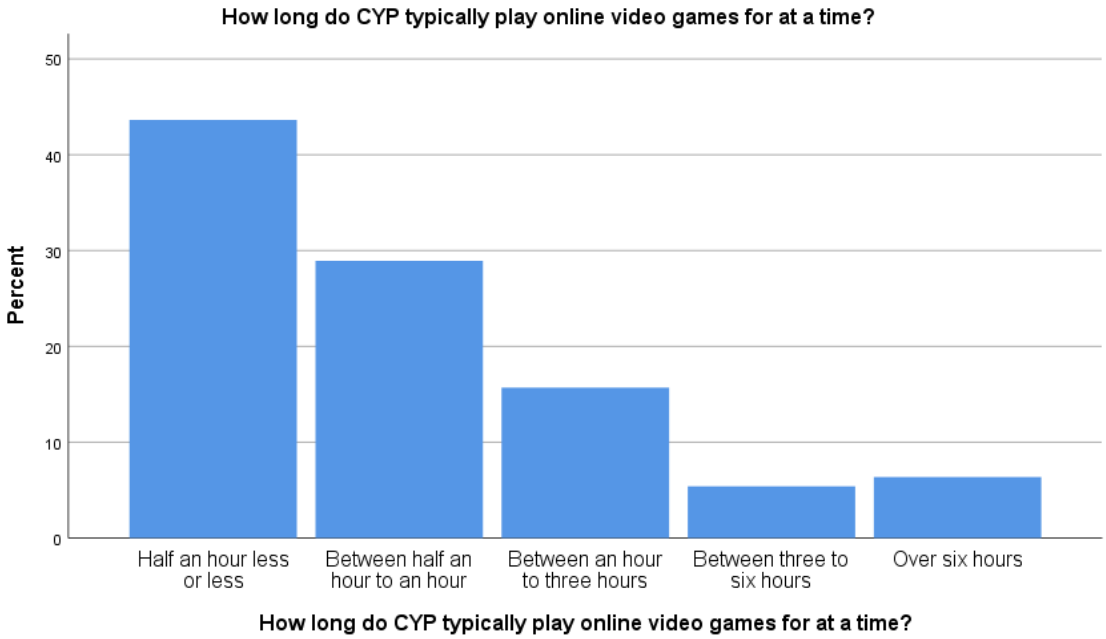


Table 33

How long do CYP in school years 4 and 5 typically play **online** *video games for at a time?*

Response	Frequency	Percent
Half an hour or less	65	48.1
Between half an hour to an hour	42	31.1
Between an hour to three hours	13	9.6
Between three to six hours	8	5.9
Over six hours	7	5.2
Total	135	100.0

Table 33, presented above, illustrates the Primary School aged participants' responses to the question 'How long do you usually play **online** video games for at a time (during one sitting)?'.

Table 34

How long do CYP in school years 8 and 9 typically play **online** *video games for at a time?*

Response	Frequency	Percent
Half an hour or less	24	34.8
Between half an hour to an hour	17	24.6
Between an hour to three hours	19	27.5
Between three to six hours	3	4.3
Over six hours	6	8.7
Total	69	100.0

Table 34, presented above, illustrates the Secondary School aged participants' responses to the question 'How long do you usually play **online** video games for at a time (during one sitting)?'.

Table 35

Mann-Whitney Test comparing responses from Primary School aged participants with Secondary School aged participants to the question 'How long do you usually play **online** video games for at a time (during one sitting)?*'*

	Ranks	
School Type (Primary School vs Secondary School data)	Mean Rank	Sum of Ranks

Secondary	115.57	7974.50
Primary	95.82	12935.50
Total		

Table 36

Test Statistics corresponding to table 35

	How long do you usually play **online** video games for at a time (during one sitting)?
Mann-Whitney U	3755.500
Wilcoxon W	12935.500
Z	-2.399
Asymp. Sig. (2-tailed)	.016

a. Grouping Variable: School Type (Primary School vs Secondary School data)

A Mann-Whitney test (tables 35 and 36) was used to compare the responses from the Primary School aged participants with the Secondary School aged participants to the question 'How long do you usually play **online** video games for at a time (during one sitting)?'. The test indicated that the Secondary School aged participants typically spend greater amounts of time playing **online** video games (during one sitting) compared with the Primary School aged participants (U=3755.5, p= .016).

Table 37

How long do male CYP typically play **online** *video games for at a time?*

Response	Frequency	Percent
Half an hour or less	34	28.1
Between half an hour to an hour	38	31.4
Between an hour to three hours	29	24.0
Between three to six hours	10	8.3
Over six hours	10	8.3
Total	121	100.0

Table 37 presented above, illustrates the male participants' responses to the question 'How long do you usually play **online** video games for at a time (during one sitting)?'.

Table 38

How long do female CYP typically play **online** *video games for at a time?*

Response	Frequency	Percent
Half an hour or less	55	66.3
Between half an hour to an hour	21	25.3
Between an hour to three hours	3	3.6
Between three to six hours	1	1.2
Over six hours	3	3.6

Total	83	100.0

Table 38, presented above, illustrates the female participants' responses to the question 'How long do you usually play **online** video games for at a time (during one sitting)?'.

Table 39

Mann-Whitney Test comparing responses from male and female participants to the question 'How long do you usually play **online** video games for at a time (during one sitting)?'

Ranks

Gender	N	Mean Rank	Sum of Ranks
Male	121	121.18	14662.50
Female	83	75.27	6247.50
Total	204		

Table 40

Test Statistics corresponding to table 39

	How long do you usually play **online** video games for at a time (during one sitting)?
Mann-Whitney U	2761.500
Wilcoxon W	6247.500
Z	-5.788
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Gender

A Mann-Whitney test (tables 39 and 40) was used to compare the responses from the male participants with the responses from the female participants to the question 'How long do you usually play **online** video games for at a time (during one sitting)?'. The test indicated that the male participants typically spent significantly more time playing **online** video games (during one sitting) compared with the female participants (U=2761.5, p= .000).

Table 41

What devices do CYP use to access video games?

Device Groups:	Frequency of students who use this device: (out of 211 responses)	Percentage of participants who use this device(s):
1) Video Games Console (Xbox 360, Xbox One, PlayStation 3, PlayStation 4, Nintendo Switch and Wii U)	165	78.2%
2) Portable Games Console (Nintendo DS variants or PS Vita)	28	13.3%
3) Laptop or PC	58	27.5%
4) Mobile device (such as mobile phone or electronic tablet; e.g. iPad)	155	73.4%

The table above provides the frequency information regarding which devices CYP are using to access and play video games. Participants were able to select as many responses as were applicable to them. As a result, participants provided a range of combinations (in terms of their selections) which are available in the appendix 2. The information was condensed and simplified for the reader in the table above. The most frequently used devices are video games consoles (78.2%), and mobile devices, such as mobile phones or electronic tablets (73.4%).

What are the PEGI ratings of the video games that CYP typically play, and how many CYP play video games with a PEGI rating greater than their own age?

Table 42

What are the, typical, PEGI ratings of video games CYP (secondary aged) play?

PEGI Ratings	Frequency	Percent
3	6	8.1%
7	5	6.8%
12	31	41.9%
16	15	20.3%
18	17	23%
Total	74	100%

The table above provides the frequency information regarding the PEGI ratings (of video games) which CYP in school years 8 and 9 play. Participants could select one of five responses: 3, 7, 12, 16 and 18. The most frequently selected PEGI rating was ‘12’, with 41.9% of participants selecting this response. Considering that the oldest participants within this group were 14, 43.3% reported that the typical PEGI rating of the video game(s) they play were ‘16’ or ‘18’.

Table 43

What are the, typical, PEGI ratings of video games CYP (primary aged) play?

PEGI Ratings	Frequency	Percent
3	7	5.2%
7	32	23.9%
12	54	40.3%
16	15	11.2%
18	26	19.4%
Total	134	100%

The table above provides the frequency information regarding the PEGI ratings (of video games) which CYP in school years 4 and 5 play. The percentage of participants who selected '18' is slightly lower compared with those in years 8 and 9 (by 3.6%), while the percentage of participants who selected '16' is lower by 9.1%. A combined percentage of 29.1% of the primary school aged CYP selected either '7' or '3', compared with only 14.9% of secondary aged CYP. Overall, 70.9% of primary aged CYP reported that they play video games with a PEGI rating greater than their own age, compared with 43.3% of the secondary aged CYP (please consider that only the PEGI ratings '16' and '18' were greater than the age of participants in years 8 and 9). With regards to video games with PEGI ratings of '16' and '18', just under a third of primary aged CYP (30.6%) reported that they play video games with those ratings.

5.2 Addressing Research Question 2: To what extent is video gaming impacting upon CYP's lives; including preoccupied thoughts and problematic use/behaviour?

Analysis and breakdown of data from the Video Gaming Preoccupation Questionnaire (VGPQ)

Table 44

The Extent to which Video Gaming occupies the thoughts of CYP (aged between 8-14) as a percentage. Response frequency (percentage).

Item	Rarely or never	Every once in a while	Sometimes	Often	Always	Mean (1-rarely or never, 5-always)	SD
How often do CYP play video games for longer than they anticipated?	43 (20.1)	56 (26.2)	50 (23.4)	36 (16.8)	29 (13.6)	2.8	1.3
How often do video games get in the way of CYP completing jobs and chores?	83 (38.8)	47 (22)	49 (22.9)	12 (5.6)	23 (10.7)	2.3	1.3
How often do CYP prefer to talk to others through online video gaming to talking in person?	113 (52.8)	33 (15.4)	29 (13.6)	14 (6.5)	25 (11.7)	2.1	1.4
How often do CYP form new friendships through	140 (65.4)	22 (10.3)	25 (11.7)	13 (6.1)	14 (6.5)	1.8	1.2

online video gaming?							
How often do CYP's families or friends complain about how much time they spend playing video games?	88 (41.1)	53 (24.8)	32 (15)	24 (11.2)	17 (7.9)	2.2	1.3
How often do CYP feel their school work is negatively impacted by the time they spend playing video games?	130 (60.7)	32 (15)	29 (13.6)	14 (6.5)	9 (4.2)	1.8	1.2
How often do CYP play video games before doing something they need to do?	76 (35.5)	55 (25.7)	33 (15.4)	23 (10.7)	27 (12.6)	2.4	1.4
How often does the amount of work CYP	137 (64)	42 (19.6)	19 (8.9)	7 (3.3)	9 (4.2)	1.6	1.1

complete suffer because of gaming?							
How often do CYP become annoyed or secretive when someone asks about the time they spend video gaming?	118 (55.1)	33 (15.4)	25 (11.7)	17 (7.9)	21 (9.8)	2	1.4
How often do CYP think about video gaming if they are feeling upset?	65 (30.4)	37 (17.3)	42 (19.6)	35 (16.4)	35 (16.4)	2.7	1.5
How often do CYP think about when they can next play video games?	58 (27.1)	48 (22.4)	42 (19.6)	37 (17.3)	29 (13.6)	2.7	1.4
How often do CYP consider how life would be boring	88 (41.1)	44 (20.6)	31 (14.5)	17 (7.9)	34 (15.9)	2.4	1.5

without video games?							
How often do CYP snap, shout or feel annoyed someone bothers them while video gaming?	88 (41.1)	28 (13.1)	43 (20.1)	24 (11.2)	31 (14.5)	2.4	1.5
How often do CYP feel they do not get enough sleep because of video gaming?	131 (61.2)	28 (13.1)	20 (9.3)	18 (8.4)	17 (7.9)	1.9	1.3
How often do CYP find themselves thinking about playing video games while at school?	76 (35.5)	53 (24.8)	27 (12.6)	26 (12.1)	32 (15)	2.5	1.5
How often do CYP find themselves saying "just a few more minutes" when video gaming?	49 (22.9)	44 (20.6)	30 (14)	36 (16.8)	55 (25.7)	3	1.5

How often do CYP try to cut down the amount of time they spend video gaming?	79 (36.9)	37 (17.3)	35 (16.4)	34 (15.9)	29 (13.6)	2.5		1.5
How often do CYP try to hide the amount of time they have spent video gaming?	119 (55.6)	27 (12.6)	26 (12.1)	12 (5.6)	29 (13.6)	2.1		1.6
How often do CYP choose to spend their time video gaming over going out with others?	107 (50)	35 (16.4)	36 (16.8)	21 (9.8)	15 (7)	2.1		1.3
How often do CYP feel sad, moody, or nervous when they are not playing video games (which goes away once they play)?	112 (52.3)	39 (18.2)	38 (17.8)	13 (6.1)	12 (5.6)	1.9		1.2

Table 45

Descriptive Statistics for the Video Gaming Preoccupation Questionnaire

N	Mean	Upper Range	Lower Range	Std Deviation	Participants who fell within average range	Participants who fell in upper range	Participants who fell in lower range
214	45.2	60.6	29.8	15.42	143 (66.82%)	36 (16.82%)	35 (16.36%)

Table 45 displays the information relating to how the participants responded across the 20 items from the Video Gaming Preoccupation Questionnaire. As table 44 demonstrates, a five-point Likert scale was used and participants could respond with the following: 'Rarely or Never'= 1, 'Every Once in a While'= 2, 'Sometimes'= 3, 'Often'= 4, and 'Always'= 5. Participant's responses to each of the items were totalled to provide a score. The mean score (M= 45.2) was used to determine the average score for the total sample, while the higher and lower boundaries were determined by identifying one standard deviation (SD= 15.42) above and below the mean score.

Table 46

Data from the male participants' responses within the Video Gaming Preoccupation Questionnaire

N	Mean total score	Male participants who fell within the average range	Male participants who fell within the upper range	Male participants who fell within the lower range
124	48.41	71.8%	19.4%	8.8%

Table 46, presented above, provides the descriptive information for the male participants' responses within the Video Gaming Preoccupation Questionnaire. The table describes how many of the male participants fell within the average, upper and lower range of the Video Gaming Preoccupation Questionnaire. The mean score of the male participants was 3.2 greater than the overall mean score of the participants and, additionally, 19.4% of the male participants fell within the upper range of the VGPQ compared with 16.82% of the overall participants.

Table 47

Data from the female participants' responses within the Video Gaming Preoccupation Questionnaire

N	Mean total score	Female participants who fell within the average range	Female participants who fell within the upper range	Female participants who fell within the lower range
90	40.7	60%	13.3%	26.7%

Table 47, presented above, provides the descriptive information for the female participants' responses within the Video Gaming Preoccupation Questionnaire. The table describes how many of the female participants fell within the average, upper and lower range of the Video Gaming Preoccupation Questionnaire. It is worth acknowledging that the female participants' mean VGPQ score was 7.71 less than that of the male participants. Furthermore, 6.1% fewer of the female participants' scores fell within the upper range of the VGPQ compared with the male participants.

Table 48

Data from the Primary School aged participants' responses within the Video Gaming Preoccupation Questionnaire

N	Mean total score	Prim School participants who fell within the average range	Prim School participants who fell within the upper range	Prim School participants who fell within the lower range
138	48.7	64.5%	24.6%	10.9%

Table 48, presented above, provides the descriptive information for the primary school aged participants' responses within the Video Gaming Preoccupation Questionnaire. The table describes how many of the primary school aged participants fell within the average, upper and lower range of the Video Gaming Preoccupation Questionnaire. The mean VGPQ score of the primary school age participants was 3.5% greater than the overall mean score of the participants and, while 24.6% of the primary school aged participants fell within the upper range of the VGPQ compared with 16.82% of the overall participants.

Table 49

Data from the Secondary School aged participants' responses within the Video Gaming Preoccupation Questionnaire

N	Mean total score	Sec School participants who fell within the average range	Sec School participants who fell within the upper range	Sec School participants who fell within the lower range
138	38.9	71.1%	2.6%	26.3%

Table 49, presented above, provides the descriptive information for the secondary school aged participants' responses within the Video Gaming Preoccupation Questionnaire. The table describes how many of the secondary school aged participants fell within the average, upper and lower range of the Video Gaming Preoccupation Questionnaire. It is worth acknowledging that the secondary school aged participants' mean VGPQ score was 9.8 less than that of the primary school aged participants. Furthermore, 22% fewer of the secondary school aged participants' scores fell within the upper range of the VGPQ compared with the primary school aged participants.

Table 50

Two way ANOVA exploring the relationship between sex and school type (primary school age/secondary school age) on Video Gaming Preoccupation Questionnaire scores

Tests of Between-Subjects Effects

Dependent Variable: Video Gaming Preoccupation Questionnaire score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	8359.688[a]	3	2786.563	13.835	.000
Intercept	353060.816	1	353060.816	1752.864	.000
School Type (Primary or Secondary)	4470.616	1	4470.616	22.2	.000
Sex (Male or Female)	2527.200	1	2527.200	12.547	.000
School Type * sex	266.048	1	266.048	1.321	.252

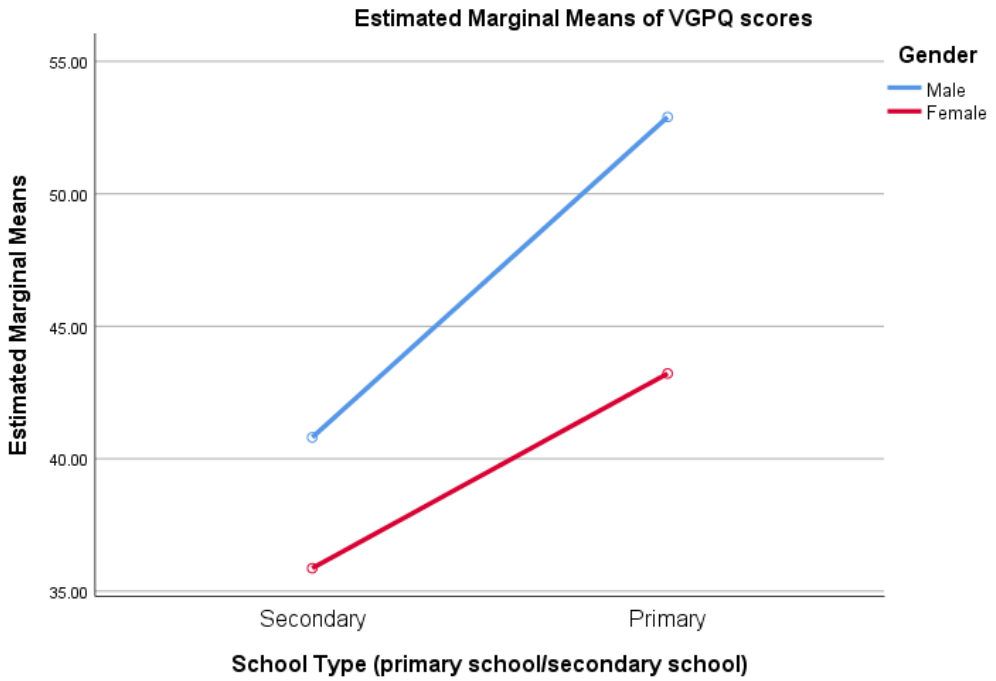
Error	42298.069	210	201.419
Total	487796.000	214	
Corrected Total	50657.757	213	

a. R Squared = .165 (Adjusted R Squared = .153)

A two-way ANOVA was conducted to examine the effect of gender and school type (primary/secondary school) on VGPQ scores. There was no statistically significant joint interaction between gender and school type on VGPQ scores, F= 1.321, p = .252. Results did, however, indicate that male scores from the VGPQ were significantly higher than female scores (F= 12.54, p= .000) and that primary school aged participants scored significantly higher than secondary school aged participants, on the VGPQ (F= 22.2, p= .000). Figure 5, presented below, highlights the differences in the mean scores for each gender, and school type.

Figure 5

Figure representing estimated marginal means of VGPQ scores for gender and school type (primary school/secondary school)



5.3 Addressing Research Question 3: Why do CYP play video games and to what extent do CYP use video games (or video game devices) as a medium for social interactions?

Table 51

How important do CYP feel video games are for speaking to friends?

Responses	Frequency	Percent
Not important at all	48	23.1%
Not very important	56	26.9%
Somewhat important	48	23.1%
Important	27	13%
Very important	29	13.9%
Total	208	100.0

The above table (table 51) provides the frequency information regarding

whether CYP feel video games are important for speaking to friends (as a medium for communication). Participants could select one of five responses from a five-point Likert scale; these responses are listed in the table and range from ‘Not important at all’ to ‘Very important’.

The figure below (figure 7) provides a visual representation of the data from table 13. As the figure conveys, the most selected response was ‘not very important’ (26.9% of participants selected this response). A combined 50% of participants selected either ‘not important at all’ or ‘not very important’, however, this indicates that at least 50% of participants feel that video gaming is at least ‘somewhat important’ for speaking with friends.

Figure 7

How important do CYP feel video games are for speaking to friends?

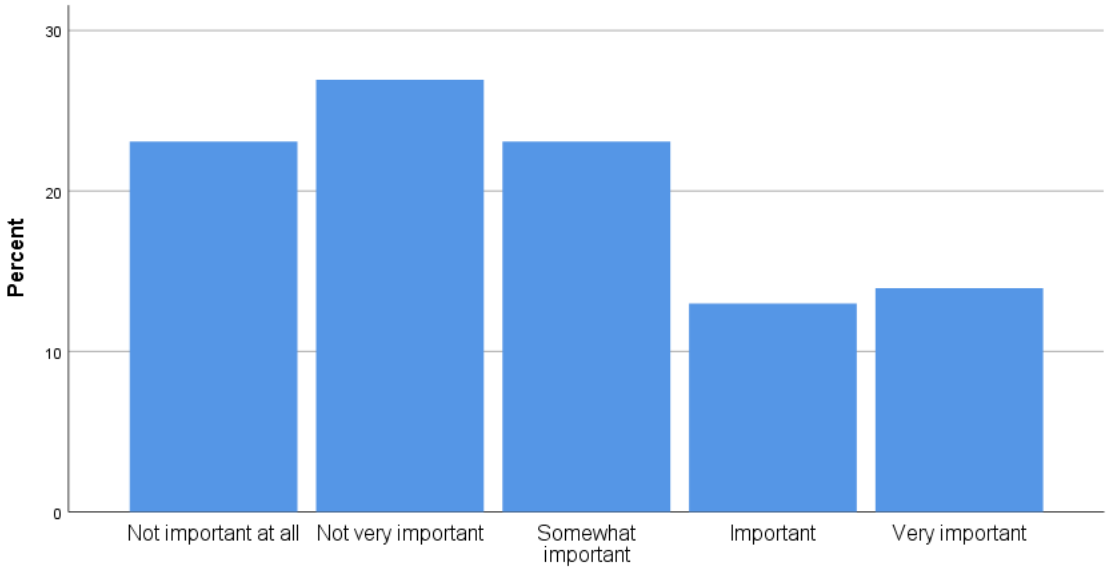


Table 52

Why are CYP motivated to play video games?

Motivating factors	Frequency of students who selected this	Percentage of participants who selected this response

		response (out of 211 responses)	
1)	For fun	152	72%
2)	To speak with friends/family	72	34.1%
3)	For the competition	41	19.4%
4)	Because it makes them feel happy	74	35.1%
5)	Because of boredom	80	37.8%
6)	For the challenge	66	31.3%
7)	“To relieve the feeling of anger” (added by participant)	2	1%
8)	“To switch off from the real world”- escapism (added by participant)	1	0.5%
9)	“To be creative” (added by participant)	1	0.5%
10)	“To be like other people”- social conformity (added by participant)	1	0.5%

The table above provides the frequency information regarding why CYP are motivated to play video games. Participants were able to select as many responses as were applicable to them, along with the option to provide their own response. Participants provided a range of combinations (in terms of their selections), as table 14 demonstrates. The information was condensed and

simplified for the reader in the table above (to see the response options in full, please refer to appendix 2). As table 52 highlights, the most frequently selected motivating factor was ‘for fun’ (72%). The second most popular response, at 37.8%, was boredom. Just over a third of participants selected the responses ‘to speak with friends/family’ (34.1%) and ‘because it makes me feel happy’ (35.1%), while just under a third of participants selected ‘because of the challenge’ (31.3%).

Table 53

What factors do CYP consider when purchasing a video game?

Criteria considered when purchasing a video game:	Frequency of students who selected this response: (out of 210 responses)	Percentage of participants who selected this response
1) Whether the video game can be played online	80	38.1%
2) How much the video game costs	97	46.2%
3) The quality of the campaign/missions	69	32.9%
4) How much content the video game has	65	31%
5) Whether my friends have the game	86	41%
6) Whether the game is part of a recurring series (such as FIFA)	42	20%

Table 53, presented above, provides the frequency information regarding the criteria CYP consider when purchasing a video game. Participants were able to select as many responses as were applicable to them; they were provided with an 'other' box, should they wish to add an additional response. The information was condensed and simplified for the reader in the table above (to see the response options in full, please refer to appendix 2). As the table highlights, the most frequently considered criteria was, 'how much the video game costs' with 46.2% of participants selecting this response. The second most popular response was 'whether my friends have the game' (41%), followed by 'whether the video game can be played online' (38.1%). Only a fifth of the participants seemed concerned as to whether video games are part of a recurring series.

Table 54

Do CYP prefer to play video games on their own or with others?

Method of play	Frequency	Percent
Online multiplayer	104	49.5%
Singleplayer	70	33.3%
Split screen	36	17.1%
Total	210	100.0

The above table provides the frequency information regarding whether CYP prefer to play video games on their own (singleplayer) or with other players (online-multiplayer or split-screen). Participants could select one of three responses which are listed in table 54 above.

The graph below provides a visual representation of the data from table 54. As graph 11 portrays, almost half (49.5%) of participants prefer to play online-

multiplayer video games. 66.6% of participants selected either ‘online-multiplayer’ or ‘split-screen’, indicating that two thirds of the participants prefer to play video games with others, compared with 33.3% of participants who reported that they prefer to play singleplayer video games. I would like to acknowledge that, regretfully, this data does not take into account those CYP who play singleplayer games in the presence of others (who may engage in turn taking).

Figure 8

Do CYP prefer to play video games on their own or with others?

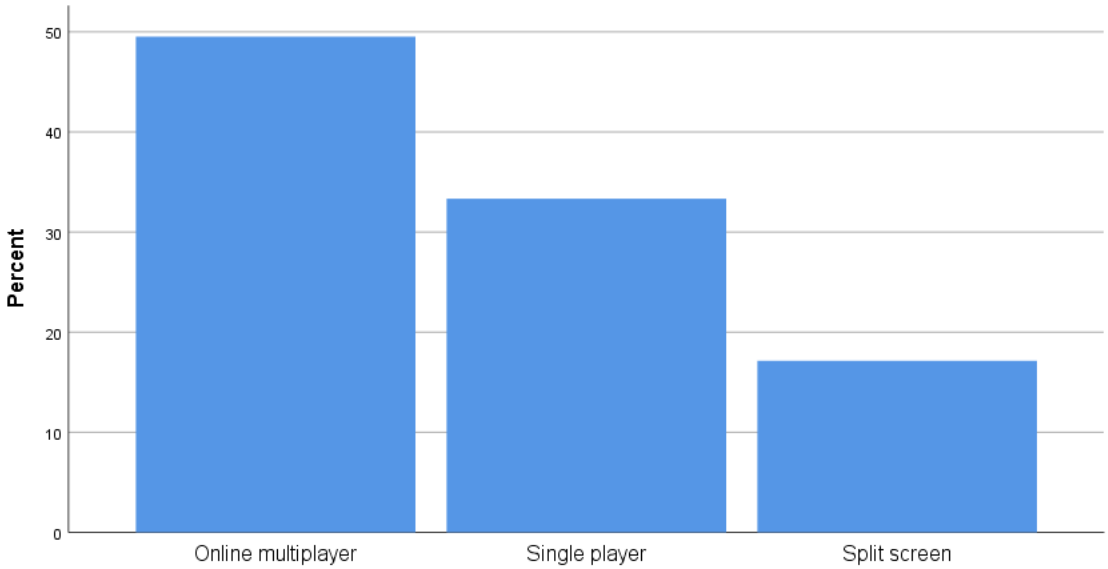


Table 55

Do CYP prefer cooperative or competitive video games?

Type of play	Frequency	Percent
Cooperative	93	46.5%
Competitive	107	53.5%
Total	200	100.0%

The above table provides the frequency information regarding whether CYP prefer to play co-operative or competitive video games. The figure below (figure 9) provides a visual representation of the data from table 55. Figure 9 demonstrates that the split between the participants is relatively even, but slightly skewed towards competitive video gaming at 53.5% compared with 46.5% for cooperative video gaming.

Figure 9

Do CYP prefer to play co-operative or competitive video games?

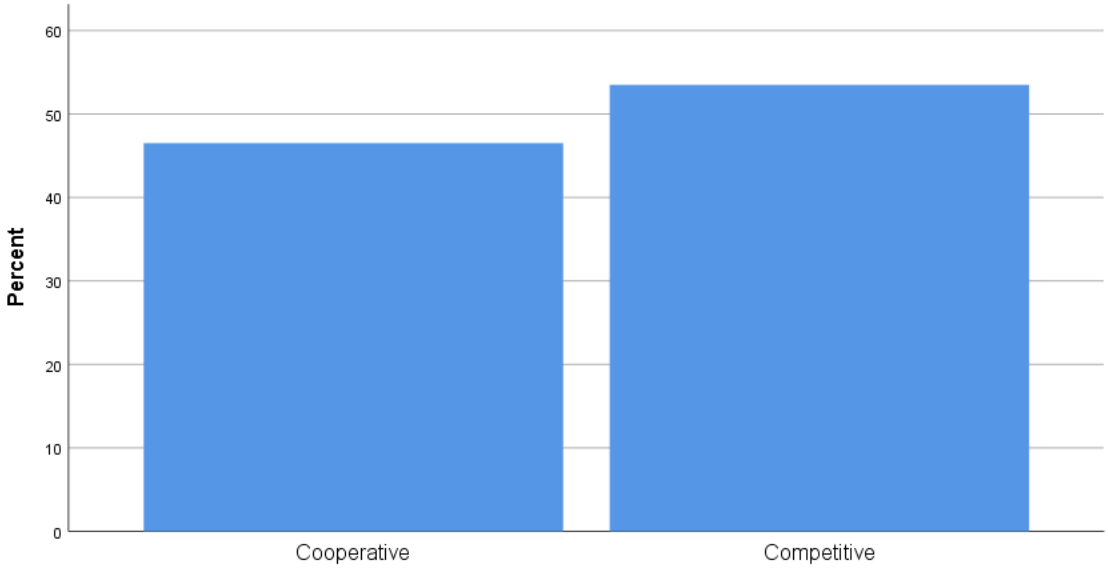


Table 56

What video game genre do CYP prefer to play?

Video game genres	Frequency of students who selected this response (out of 207 responses)	Percentage of participants who selected this response
1) Action/adventure	115	55.6%
2) Shooter	109	52.7%

3)	Racing	71	34.3%
4)	MMO (Massively Multiplayer)	99	47.8%
5)	Role Play	28	13.5%
6)	Strategy	29	14%
7)	Sports	61	29.5%
8)	Battle Royale	118	57%

The table above provides the frequency information regarding the genres of video games CYP prefer to play. Participants were able to select as many responses as were applicable to them; they were provided with an 'other' box, should they have wanted to add an additional response. The available responses were condensed and simplified for the reader in the table above (please refer to appendix 2 to see the full response options). As the table highlights, the three most popular video game genres included 'Battle Royale' (57%), 'action/adventure' (55.6%), and 'shooter' (52.7%). These responses were closely followed by 'MMO' with 47.8% of participants selecting this response. The two genres selected the least included 'strategy' (14%) and 'role play' (13.5%).

5.4 Addressing part of Research Question 4: How do CYP reflect upon the impact of their, and others, use of video games?

What are CYPs perceptions of those who do not play video games?

Table 57

Responses to the question: "Do you judge other children negatively (does it seem uncool) if they can't, or choose not to, play video games?"

Response	Frequency	Percent
Definitely not	89	41.8%
I don't think so	53	24.9%
Not sure	45	21.1%
I think so	14	6.6%
Definitely	12	5.6%
Total	213	100.0

The above table provides the frequency information regarding whether CYP make negative judgements about other CYP who do not play, or do not have access to, video games. Participants could select one of five responses from a five-point Likert scale; these responses are listed in table 19 and range from ‘Definitely not’ to ‘Definitely’.

Figure 10, below, provides a visual representation of the data from table 57. As the figure reports, over 41% of participants responded with ‘Definitely not’, indicating that they do not judge other CYP negatively (for not playing or having access to video games). Only a combined 12.2% of participants responded with either ‘Definitely’ or ‘I think so’, while 21.1% of participants responded with ‘not sure’.

Figure 10

Do CYP make negative assumptions about CYP who do not play, or have access to, video games?

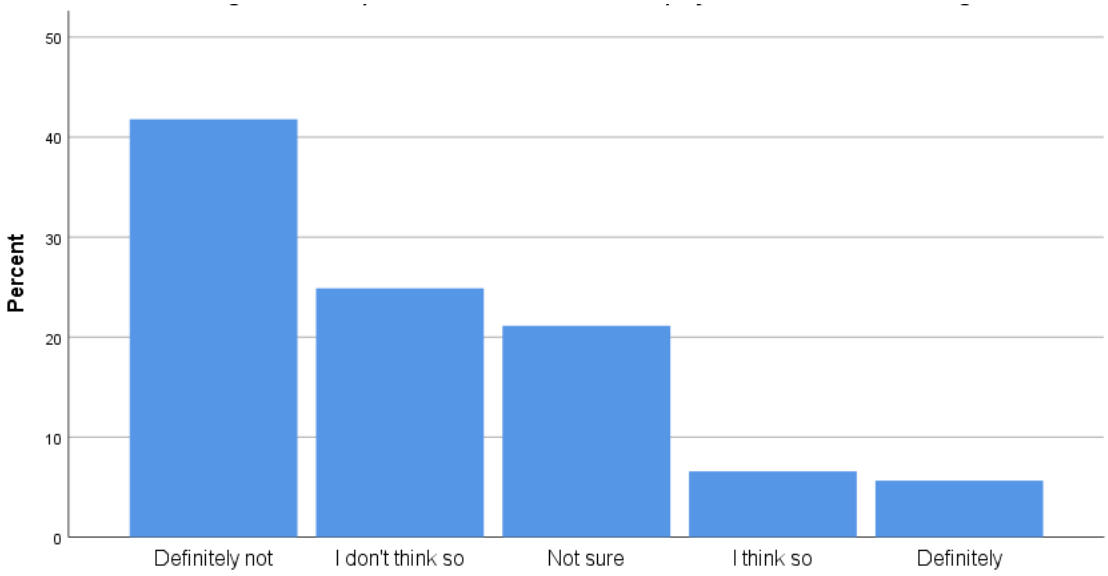


Table 58

Do CYP feel that other CYP are missing out if they do not play video games?

Response	Frequency	Percent
Definitely not	49	22.9%
I don't think so	36	16.8%
Not sure	58	27.1%
I think so	39	18.2%
Definitely	32	15%
Total	214	100.0

Table 58 provides the frequency information regarding whether CYP feel other CYP are missing out if they do not play video games. Participants could select one of five responses from a five-point Likert scale; these responses are listed in table 58 and range from 'Definitely not' to 'Definitely'.

Figure 11 below provides a visual representation of the data from table 58. Figure 11 demonstrates that the participants' responses were relatively evenly spread across the five-point scale, with 'Not sure' receiving the highest amount of selections (27.1%). A combined 33.2% of participants responded with either

‘Definitely’ or ‘I think so’, while a greater total of 39.7% (of participants) responded with either ‘Definitely not’ or ‘I don’t think so’.

Figure 11

Do CYP perceive other CYP are missing out if they do not play video games?

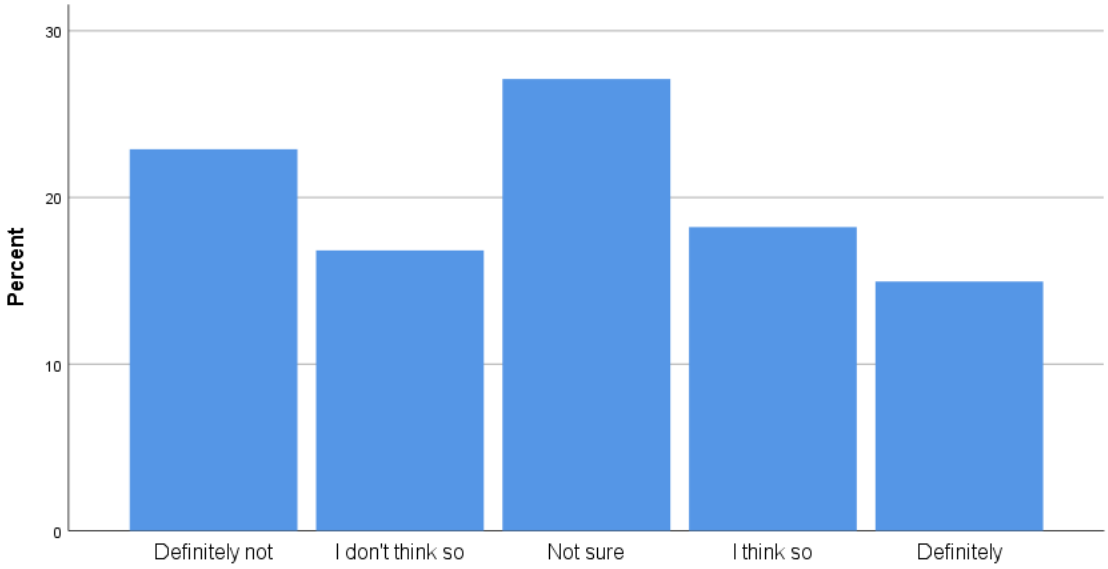


Table 59

Do CYP feel that video games have a good or bad impact upon how people behave?

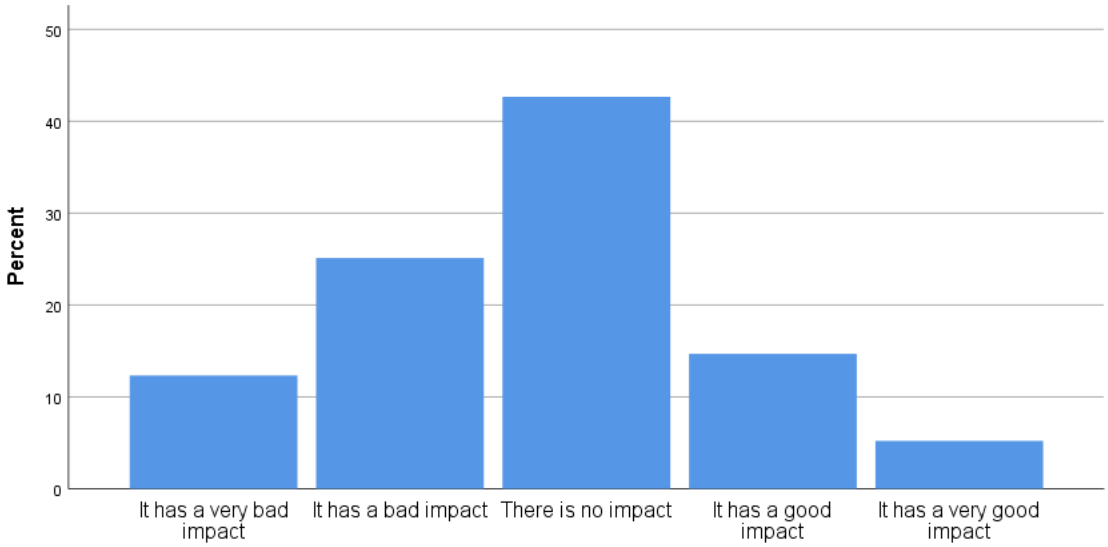
Response	Frequency	Percent
It has a very bad impact	26	12.3%
It has a bad impact	53	25.1%
There is no impact	90	42.7%
It has a good impact	31	14.7%
It has a very good impact	11	5.2%
Total	211	100.0

Table 59 provides the frequency information regarding whether CYP feel that video games have a positive/negative impact upon their behaviour, or no impact at all. Participants could select one of five responses from a five-point Likert scale; these responses are listed in table 21 and range from ‘It has a very bad impact’ to ‘It has a very good impact’.

Figure 12 provides a visual representation of the data from table 59. As the figure makes clear, the most popular response was ‘there is no impact’ (42.7%). A combined total of 37.4% participants selected either ‘it has a very bad impact’ or ‘it has a bad impact’, this was higher than the combined total of 19.9% of participants who selected either ‘it has a good impact’ or ‘it has a very good impact’. Overall, it appears that more participants felt video gaming has a negative impact, rather than a positive impact, upon how people behave.

Figure 12

Do CYP feel that video gaming has a good or bad impact upon how people behave towards one another?



Chapter 6: Phase 1 Discussion

This discussion will explore the results gathered from Phase 1 of the study. To reiterate an earlier point, within the discussion of Phase 1, interpretations will be made regarding 'CYP', however, this phrase is referring to the CYP who participated within this research (aged between 8-10 and 12-14). The discussion will be divided into different sections based on the research questions the questionnaire's 34 items aimed to address. These individual sections will be presented in the following order:

RQ1 (How are CYP accessing video games and what are their behaviour patterns during their use of video games?) including:

- How much time do CYP spend playing video games, and how often?
- What devices do CYP use to access video games?
- What are the PEGI ratings of the video games CYP typically play, and how many CYP play video games with a PEGI rating greater than their own age?

RQ2 (To what extent is video gaming impacting upon CYP's lives; preoccupied thoughts and problematic use/behaviour?) including:

- Summary of findings from the VGPQ
- Gender differences with regards to VGPQ results
- Age differences with regards VGPQ results

RQ3 (Why do CYP play video games and to what extent do CYP use video games, or video game devices, as a medium for social interactions? - will be partially addressed through Phase 2) including:

- Do CYP feel that video gaming is important for speaking with friends?

- Why are CYP motivated to play video games?
- What factors influence CYP's decision to purchase a video game?
- Do CYP prefer to play co-operatively or competitively?
- What genre of video games do CYP prefer to play?

RQ4 (How do CYP reflect upon their use, and the impact, of video games? - also to be addressed through Phase 2) including:

- What are CYPs perceptions of other CYP who do not play video games?
- Do CYP feel that video gaming has an impact upon their behaviour?

6.1 RQ1- How are CYP accessing video games and what are their behaviour patterns during their use of video games?

The results from table 5 demonstrate that most of the participants were playing video games at least once a day and only 8.9% of participants reported that they didn't play video games at all. The statistic which appears most significant, is that just under a third of the participants were playing video games more than once a day at the time of completing the questionnaire. Overall, such information could imply that video gaming is a regular activity for many children, and those who do not engage with video gaming are in a small minority. As reported in table 8 and 9, a Mann-Whitney test demonstrated that there was a significant difference between the frequency primary school aged participants played video games compared with the secondary school aged participants. The same test revealed a similar difference between the male and female participants. While 23.7% of the secondary school aged participants played video games more than once a day, 37% of the primary school aged participants reported that they play more than once a day. For the female participants, this figure was 21.1%, while 40.3% of the male participants reported that they play video games more than once a day. The responses to this particular question begin to demonstrate a theme with regards to the male, and primary school aged participants' responses.

What makes this data more interesting, is that 38.5% of all participants were playing anywhere between an hour to over six hours (at a time), while another 38.9% of the participants were playing between half an hour to an hour (please refer to table 23). When one considers that 77.4% of the participants play video games for at least half an hour, and that many of these participants are potentially playing several times throughout the day, it begins to illustrate the extent (regarding the frequency and time) to which CYP engage with video gaming. Considering this information, it is unsurprising that 'Gaming Disorder' is now a recognised condition by the World Health Organisation (2018). The percentage of participants who played three hours or more was 16.2%, however, in comparison 17.5% of the primary school aged participants played three hours or more, while 22.1% of the male participants played for three hours or more; this was statistically significantly higher than the female participants, of whom only 7.8% played for three hours or more.

In terms of recognising how CYP are playing video games, the results from the questions concerned with **online** video gaming (tables 23-38) demonstrate that the majority of CYP who are playing video games, are also accessing **online** video games. Only 21.1% of the CYP who reported that they play video games, are not playing **online** video games (table 23); demonstrating the importance of the online features which **online** video gaming provides for this sample of participants. These results from the sample population reflect how CYP, particularly adolescents, in the wider context may be using technology with online capabilities/features, such as social media platforms (Lamblin, Murawski, Whittle & Fornito, 2017), as a forum for connecting with others. Furthermore, while 22.5% of the participants appear to be playing **online** video games more than once a day, they are playing for less time compared with the time CYP are playing video games, generally. Despite this, at least 27.5% of the participants were still playing **online** video games anywhere between an hour to over six hours, at a time. Reasons for why certain CYP are spending such long periods of time playing **online** video games will be discussed further when addressing RQ 3. With reference to how these results differed based on gender and school type (primary school or secondary school), once again, the male and primary school aged participants played **online** video games more frequently than female and secondary school aged participants (statistically

significantly so for the male participants, when compared with female participants). However, while the male participants played **online** video games for (statistically) significantly longer than the female participants, it was the secondary school aged participants who played **online** video games (statistically) significantly longer than the primary school aged participants; please refer to tables 24-39 for more detailed information. Overall, the results from the time-based questions indicate that the primary school aged participants, who would be considered as the target audience of the video game 'Fortnite' (PEGI rated 12), and the male participants appear to be playing video games more frequently, and for longer. This pattern will be explored further within the discussion of the VGPQ results.

One possible reason, I believe, CYP's use of **online** video games is so high is because of how they are accessing **online** video games. This project identified (through multiple-choice items, please see table 41) that while 78.2% of the participants are playing video games using dedicated video gaming consoles, 73.4% of participants reported that they are using mobile devices (mobile phones or electronic tablets- such as an iPad) to play video games. It appears that portable gaming consoles are, potentially, being replaced by mobile devices. I would suggest that this is due to 1) increased practicality of using one device for video gaming while on the move (instead of, for example, a smartphone and a portable gaming device), and 2) because of the inherently increased interconnective capabilities of mobile devices (particularly smartphones) compared with portable gaming consoles (not all of which have online capabilities and those that do require an additional subscription). As it appears CYP based in the UK demonstrate greater excessive use of smartphones compared the rest of Europe (Livingstone, Haddon, Vincent, Mascheroni & Ólafsson, 2014) one may consider whether this disparity is associated with CYP's increased access and high use of video games.

In terms of analysing how CYP are accessing video games, I believe it is important to understand whether video games are appropriate or intended for the CYP who end up playing them. Tables 42 and 43 reveal data regarding the PEGI ratings of the video games which CYP are typically playing. Bijvank, Konijn, Bushman and Roelofsma (2009) acknowledged the dangers of exposing CYP to explicit and inappropriate content, however, despite such concerns, of

the primary school aged participants within this study 70.9% were playing video games with a PEGI rating greater than their own age (either 12, 16, or 18) and just under a third were typically playing 16 and 18 PEGI rated video games. While it would be anticipated that the secondary school aged participants would spend more time playing 16 and 18 PEGI rated video games, it is still worth considering that these students were only aged between 12-14. Overall, 43.3% of the secondary school aged participants were playing 16 and 18 PEGI rated video games. One notable result was the minor difference between the primary and secondary school aged participants who played video games with a PEGI rating of '18' (19.4% vs 23%). I anticipated a greater disparity, however, a possible explanation could be explained by social psychology and the impact of social influence; I would argue that primary aged CYP may perceive that it is desirable to play video games intended for older children (such as PEGI rated 18 video games), whereas, older CYP are less influenced by such social conformity (Walker & Andrade, 1996) and are, potentially, more interested in playing video games they enjoy rather than games which improve how they are perceived.

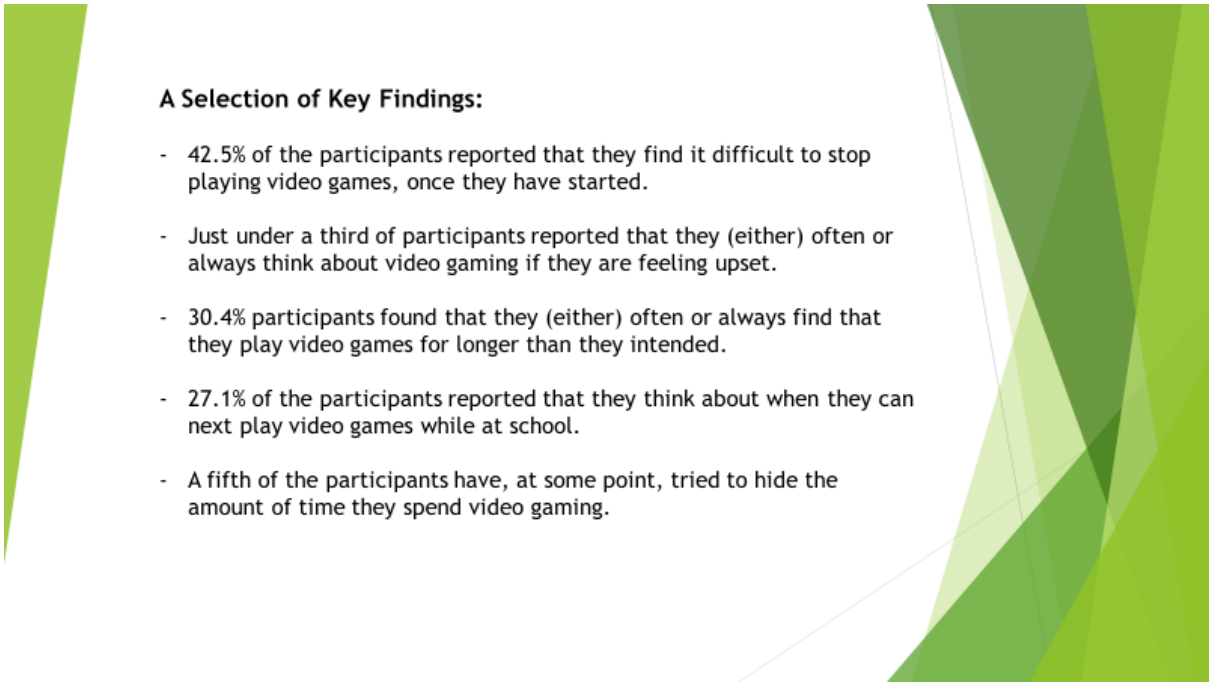
Unsurprisingly, the PEGI rating of the video games most played by both the 8-10 year olds and the 12-14 year olds was '12'. This selection, in my opinion, reflects the recent surge in CYP playing the video game known as 'Fortnite: Battle Royale', a '12' rated title. At the time of writing this, the CEO of a technology blog website known as 'Engadget' claimed the number of 'Fortnite: Battle Royale' players were close to 250 million (Bailey, 2019). 'Fortnite: Battle Royale' is a massively multiplayer title and as its title suggests, it is also a 'battle royale' video game. When searching for a description of 'battle royale' video games, familiar key words arose including: survival, multiplayer, PVP (player versus player), and last player standing. Essentially, the 'battle royale' genre involves large numbers of (human) players playing with or against each other, online, to be the last player (or players) remaining. The games take place on a large, open world map where players can interact through co-operative or aggressive behaviours. The website 'digital trends' conducted an interview with Simon Darveau, the creative director of a recently launched battle royale game (Hornshaw, 2019). During the interview, Darveau referred to the fact that 'battle royale' video games allow players to have "social experiences with a strong

social psychology element in it". Darveau discussed how video games are, essentially, becoming more than just "mechanical skill, dexterity, reflexes, timing, precision" and that players seek unpredictable and "fun" interactions with other real players, instead of predictable artificial intelligence-based characters. Further exploration regarding 'battle royale' games, and how certain video games are aligned with social psychology is discussed in the breakdown of Research Question 3.

6.2 RQ2- To what extent is video gaming impacting upon CYP's lives (including preoccupied thoughts and problematic use/behaviour)?

An adapted version of Young's (1998) Internet Addiction Test was included within this project's questionnaire in order to identify the extent to which video gaming impacting upon CYP's (in terms of preoccupied thoughts and problematic use/behaviour). As mentioned, this adapted version of the IAT was titled the 'Video Gaming Preoccupation Questionnaire'. To see how the participants responded across all 20 of the items from the Video Gaming Preoccupation Questionnaire, please refer to tables 44-50 as this discussion will be focused around the overall results and scores from the adapted questions. Figure 13 (below) provides a selection of key findings from the overall results.

Figure 13



Some of the results provide some insight regarding how video gaming is considered by CYP. While it appears as though some participants experience potential feelings of shame or guilt for playing video games, demonstrated through their attempts to hide the time they spend playing (possibly because they feel their time may be better spent doing other activities- such as homework), video games are also a form of relief and joy for many participants; who think about video gaming if they are feeling upset. Research has suggested that video games provide CYP with positive experiences and emotions (Adachi & Willoughby, 2017) however, ultimately, it appears as though video gaming is a conflicting activity for many CYP. There is some evidence to suggest that CYP, particularly adolescents, experience the feeling of guilt following their use of video games (Hodge, Taylor & McAlaney, 2019). My hypothesis was that CYP may feel their time is better spent engaging with more physical or learning based activities, or because of contextual pressure from those who believe that video gaming is a detrimental activity (such as some parents). Ultimately, as the overall results demonstrate, video gaming is an activity which does preoccupy the mind of many of the CYP within this research.

As discussed within the findings section, the average, upper and lower boundaries for participant' VGPQ scores were determined based on whether

they fell within or outside one standard deviation above or below the overall mean score, which was 45.2. I.e. those which fell within one standard deviation of the mean were deemed as average scores and those which fell above or below were deemed as high or low scores. A high score would indicate a high level of video gaming preoccupation and vice versa with a low score. As table 45 highlights, 66.82% of this sample fell within the average range, while 16.82% and 16.36% fell within the upper and lower ranges, respectively. This information is useful as it allows for comparisons with the two independent variables under focus within this study, gender and school type (primary school vs secondary school), and whether there is an interaction between both variables with regards to VGPQ scores.

The results demonstrate some dramatic differences between the groups, particularly when examining what percentage of each group which fell within the upper range of the VGPQ. While only 2.6% of the secondary school aged participants and 13.3% of the female participants fell within the upper range of the VGPQ, 19.4% of the male participants and 24.6% of the primary school aged participants fell within the upper range (please refer to tables 46-49). These results tally with the participants' responses to the time-based questions presented in tables 24-39 and as presented in table 50, a two way ANOVA demonstrated that the differences between the male/female and primary school/secondary school scores were statistically significant. There was, however, no significant interaction between gender and school type on the VGPQ scores. Figure 5 clearly presents how school type (primary or secondary school) was the greatest determinant for participants having high VGPQ scores.

These results tally with growing concerns regarding problematic behaviours/attitudes CYP are experiencing with smartphones, and social media platforms (Cho & Lee, 2017; Court, 2016). While it appears that organisations such as WHO, among others, are now able to recognise the growing impact technology is having upon CYP (World Health Organisation, 2018), I believe there is still a distinction to be made when reflecting on CYPs addictive behavioural patterns within video gaming. My view is that there is scope to reflect upon the social variables which also play a part in how CYP spend their time video gaming. Specifically, my view is that a CYP who falls into the upper

range of video game preoccupation (with reference to their use of video gaming) but spends much of their time playing **online** video games with friends or family, is still engaging in a more meaningful and socially stimulating activity compared with a CYP who also falls into the upper range (of video gaming preoccupation), but is spending their time playing video games on their own. I would argue these two activities should be viewed differently, as one variant of video gaming entails elements of co-operation, communication, social feedback and interaction, while the other is very much a solitary activity (although addictive thoughts/behaviour towards either would be of concern).

This data also highlights and provides further evidence towards the gender differences with regards to the importance of the social experiences males appear to gain from video gaming (Rutherford, 2018). Furthermore, the data reflects differences in gender interactions more generally. Research has acknowledged that females show a preference for emotional sharing, through frequent conversations while males tend to socialise through specific events or activities (Caldwell & Peplau, 1982). The way in which many video games are an activity by nature, with a clear focus on shared objectives may explain why males scored higher in the Video Gaming Preoccupation Questionnaire. The data collection from Phase 2 will aim to elaborate upon this discussion.

My prediction was that the secondary school aged participants would score higher in the Video Gaming Preoccupation Questionnaire. This prediction was based on the wider range of video games available (or aimed at) for CYP aged 12 or older. The results (see tables 46-49) highlight the opposite was true as only 2.6% of the participants aged 12-14 fell within the upper range of the VGPQ (compared with 24.6% of those aged 10-12). While it is not possible to generalise these findings (one because of the limited sample size and two because of the higher number of primary school participants compared with secondary school participants), one possible explanation for the difference could be that secondary school aged CYP experience greater motivation towards their learning, because of the increased implications of their school performance (including GCSEs or A-levels). The 12-14 year old participants may be spending more time engaging with other activities, such as revision or learning outside of school, or as research has implied (Anderson & Jiang,

2018), the importance of social media for teenagers/adolescents may take precedence.

6.3 RQ3- Why do CYP play video games and to what extent do CYP use video games (or video game devices) as a medium for social interactions?

The questions which aimed to address the motivations behind CYPs use of video games provided some clear and insightful data. Overall, it appears that the participants prefer playing online video games (table 54), however, they seem to struggle in some respects, when reflecting upon why (given the slight disparity within their responses in table 51, and table 54). The questions which focused on RQ3 (please refer to: tables 51-56) sought to identify why CYP are motivated to play video games. These questions involved different approaches to understanding whether the participant's motivation(s) spawned from a social basis compared with other motivating factors. While some of these questions were more obvious in their approach (such as 'how important do CYP feel video games are for speaking to friends?'), other questions were more ambiguous in their presentation. For example, identifying the genre of video games CYP prefer to play was important as certain genres are synonymous with online video gaming, as will be discussed.

With regards to the importance of video gaming for speaking with friends and family, at least 50% of the participants felt that video gaming was at least 'somewhat important' for doing so, while 26.9% felt that video gaming was either 'important' or 'very important' for speaking with friends and family. It appears the participants were fairly split in terms of their thoughts on this question, as these results also suggest that 50% also felt that video gaming was not important for speaking with friends/family. I believe that these results are varied due to the different ways in which video games can be played. For example, those CYP who prefer online video games or 'battle royale' video games may feel that communicating (verbally) with other players is important, while those who play on their own, may not necessarily feel such a need to communicate with others.

Alternatively, participants were clear in communicating the importance of other motivating factors within video gaming. ‘For fun’, was the most selected response by participants, 72%. ‘Because I get bored’ was selected by 37.8% of participants and ‘because it makes me feel happy’ was selected by 35.1% of participants. Unsurprisingly, as is the case with most hobbies and sports, the participants were clear in communicating that having fun was important (Weiss & Petlichkoff, 1989). Similarly, responses concerned with happiness and reducing boredom could also be associated with what constitutes as ‘having fun’ (Bolton & Houlihan, 2009). Such responses could be linked to the previously mentioned psychological theories, such as ‘flow theory’ (Csikszentmihalyi, 1997) or the ‘uses and gratifications’ theory (Katz, Blumler & Gurevitch, 1973). It appears that, for many of the participants, there was an element of intrinsic motivation provided by video gaming, which they found to be inherently rewarding and enjoyable. Such motivation could be provided through individual experiences of success through video gaming and by experiencing self-efficacy (belief in one’s ability to do or achieve something successfully); these theories will be discussed in greater detail within the Phase 2 analysis.

Interestingly, the next most selected response (selected by 34.1% of participants) was ‘to speak with friends or family’. This indicates that over a third of CYP are specifically motivated to play video games due to the opportunity it provides regarding communication with others (friends and family specifically). Regrettably, it would have been interesting to see whether this response would have been selected by more participants if the specificity was reduced, and the response simply read as “to speak with others”, however, it was still useful for identifying contact with familiar others.

Research has demonstrated that CYP and adults frequently speak with strangers and make new acquaintances through video gaming (Nardi & Harris, 2006). Ultimately, it is important to consider how CYP would require further reflection to choose any of the responses which involved deeper thought (such as ‘for the competition’, or ‘for the challenge’), compared with the more basic responses (such as ‘for fun’, or ‘because I get bored’). Regardless, just under a third of the participants (31.3%) selected “because it challenges me”, indicating that many CYP may be video gaming due to the stimulation involved with the

challenging aspects of video games. Likewise, other research has suggested that many CYP use video games to ‘prove themselves’ and to experience success through video gaming (Lobel, Engels, Stone & Granic, 2019). Five participants provided their own responses to this question within the ‘other’ box (please see table 52). One participant wrote “to be like other people”, indicating that, at least for them, elements of social conformity may also feature within CYP’s use of video games.

Further consideration is required (for CYP) when selecting a video game to purchase, particularly if they are using their own money. The cost of the video game appeared to be the biggest factor considered by CYP (table 53). When considering most of the participants would not be expected to earn money (based on the age ranges selected 8-14) from any mainstream form of employment, it was unsurprising that cost was a big factor (selected by 46.2% of participants). Similarly, the response ‘how much content the video game has’, is also concerned with cost or more specifically, value for money, and was selected by just under a third of the participants. However, two of the most selected responses included ‘whether the video game can be played online’ (selected by 38.1% of participants) and ‘whether my friends have the game’ (selected by 41% of participants). I interpret these responses to indicate that many CYP are likely be influenced, when purchasing a video game, by whether their peers have the video game, and/or whether the video game has online features which will let them connect with their peers. These two statistics demonstrate that, for this sample of CYP, video gaming is a social activity and that social factors are likely involved when purchasing a video game. I would argue that it is important for CYP to have experiences and activities in common with their peers which are, in turn, discussed when they meet at school. These social aspects of video gaming are explored further within Phase 2 of this research project.

As Rezaei and Ghodsi (2014) have acknowledged, online or multiplayer video games are growing exponentially in popularity, and this is reflected within consumers preferences for video games. This research project aimed to identify the extent to which this applies to CYP, and what their preferences were in terms of the type of video games they choose to play. As table 54

demonstrates, two thirds of participants prefer to play online-multiplayer video games or split-screen video games, compared with singleplayer video games. While, as described, online video games allow players to interact through the internet based servers, split-screen video games typically refer to video games where the display device has been divided into two equally sized areas (or sometimes up to four) meaning multiple players can explore different areas independently of each other. Split-screen is also sometimes referred to as 'local co-op' mode. Essentially, split-screen is a way of playing with other players situated in the same location, and therefore entails elements of social interaction as such games played co-operatively or competitively. With reference to the potential social implications of video gaming, Barr (2017) acknowledged the potential benefits split-screen video gaming can have towards developing communication skills for university students. Moreover, the responses to this question (whether CYP prefer to play multiplayer or singleplayer video games) highlight the importance of video games which allow players to interact with each other, as only 33% of participants reported that they prefer to play singleplayer video games. While it is important to acknowledge that online video gaming does not necessarily imply that CYP are always verbally communicating with each other, CYP's preference towards online video gaming does imply that CYP may be interested in playing video games which allow some form of interaction. This was something I was hoping to explore further through Phase 2 of my research.

Table 55 illustrates how the participants were, relatively, evenly split with regards to their preference for playing co-operative or competitive video games. This information can help to understand whether CYP are playing video games as a form of competition and challenge, which online video games can offer (Lobel, Engels, Stone, & Granic, 2019) or as a way of engaging in pro-social interactions with other players. As the results demonstrated, CYP within this research appeared to be using video games for both competitive and co-operative reasons in (fairly) equal measure. It appears as though CYP enjoy competing with other players and having the opportunity to work with other players towards a shared goal or objective. Molyneuex, Vasudevan and Gil de Zuniga (2015) highlighted how such co-operative social interactions in video

games can lead to the development of community bonding and prosocial attitudes.

When reviewing participant's preferred video game genres (table 56) it is important to acknowledge that many video game genres overlap (Arsenault, 2009). For example, a title such as 'Fortnite: Battle Royale' involves elements of action, shooting, strategy in addition to playing alongside many other players (massively multiplayer online). Most significantly though, as the title suggests, 'Fortnite: Battle Royale' is a 'battle royale' video game. Alternatively, a video game such as one of the 'FIFA' (Fédération Internationale de Football Association) video games is likely to (only) be considered a 'sports' or 'e-sports' video game (Hamari & Sjoblom, 2017). As table 56 demonstrates, the most popular video game genre was 'Battle Royale' (selected by 57% of participants), closely followed by: 'Action/Adventure' (selected by 55.6%), 'Shooter' (selected by 52.7%) and 'MMO' (selected by 47.8%). These results could be argued to evidence the popularity of video games which allow large groups of players to interact. My interpretation is that the participant's preference for such video game genres implies that the participants seek social interactions through video gaming. I believe that such interactions differ from playing against computer based artificial intelligence characters as they provide elements of unpredictability, working towards a shared goal/objective with others, and having the opportunity to play with friends. Video games, such as the hugely popular 'Fortnite: Battle Royale' (Bailey, 2019), allow players to enjoy experiences other video games cannot provide (Yee, 2006). Video gamers have the option to form alliances or choose to compete with other groups of/individual players. Video gamers can participate in what Simon Darveau (the creative director of a battle royale video game) described as "a living entity that's connected to the collective consciousness" (Hornshaw, 2019). I believe Darveau was acknowledging that social aspects of video gaming involve more than direct communication as players will seek ways to prove themselves and compare their performance against others, as research has evidenced (Lobel, Engels, Stone & Granic, 2019). Certain video games provide additional social stimulation for players as they allow competition/co-operation with other players, rather than computer-based (AI) characters.

Overall, the responses from the questions which contribute towards RQ3, in my opinion, demonstrate that the participants are motivated by many different social elements of video gaming, however, this doesn't necessarily mean talking directly to other players, as table 51 demonstrates. Revising the question "how important is video gaming for allowing you to speak with your friends?" to "how important is video gaming for allowing you to connect with other people/players?" may have yielded a different overall response from participants. Despite this, it is important to recognise that at least 50% of participants felt that video gaming was, 'somewhat important' for speaking with friends. This research can support the notion that CYP use video games a way of experiencing social connectedness, and as a result, why CYP might present with problematic behaviours/preoccupied thoughts towards video gaming, and/or reduced motivation towards other activities (such as sports or meeting up with friends outside of school).

6.4 RQ4- How do CYP reflect upon the impact of their, and others, use of video games?

As noted, Phase 2 of this research will aim to identify how the CYP within this research reflect upon their use, and the impact, of video games. However, based on conversations I have had with CYP in educational settings (about the importance of video gaming with regards to social conformity) I felt it was important to gather some quantitative data to further explore RQ4. While I was hoping to ascertain (through Phase 2) whether CYPs interactions in school are impacted upon by video gaming (such as the topic of CYPs discussions) I was also interested to see whether CYP make judgements about other CYP who do not engage with video gaming; which, as data (including that from this study) has demonstrated, appears to be a popular activity for CYP in the 21st century (Trespalacios, Chamberlin, & Gallagher, 2011).

Table 57 demonstrated that the participants did not, typically, judge other CYP who do not play video games negatively. Just over two thirds of the participants responded with 'definitely not' or 'I don't think so', while only a combined 12.2% of participants responded with 'definitely' or 'I think so'.

Ultimately, it appears that CYP enjoy video gaming, however, they are understanding and, largely, non-judgemental of other CYP who do not play video game; it is not an expectation. Less clear, is whether CYP feel that other CYP (who do not play video games) are missing out. With reference to the responses provided in table 58, the most selected response was ‘not sure’ (25.9%). A combined total of 33.2% of participants responded with either ‘definitely’ or ‘I think so’ while a combined total of 39.7% responded with ‘definitely not’ or ‘I don’t think so’; demonstrating that the participants were fairly split in terms of how they reflected upon this question. My understanding is that while many of the CYP felt that video games are fun, there may be more efficient or proactive ways of spending their time; a theme explored within Phase 2.

Table 59 demonstrates that the participants did not, typically, feel that video gaming has a positive impact upon their behaviour. A total of 37.4% of participants felt that video games either have a ‘very bad impact’ or a ‘bad impact upon their interactions with others, while 42.7% reported that video games have ‘no impact’ upon their interactions. It appears that CYP do reflect, to a certain extent, upon the notion that while video games are an enjoyable activity, they may not be beneficial for certain aspects of their development and their behaviour.

6.5 Phase 1 discussion conclusion

Overall, the Phase 1 data from this project has demonstrated that many of the CYP involved within this study present with preoccupied thoughts towards video gaming, and that primary school aged young people, along with male young people, were at the greatest risk of such preoccupation. Additionally, this research has demonstrated that many of the CYP involved within research are playing video games several times throughout the day; nearly 40% of these CYP are playing for at least an hour at a time, while just over 15% of the participants would play video games for at least three hours at a time. When reflecting upon this data collectively, many of the participants within this study are spending a substantial amount of time video gaming. How the participants

reflect on this, and the potential impacts video gaming has, will be explored through Phase 2.

Phase 1 of this research project has also ascertained valuable information concerning CYPs motivation for playing video games which, largely, are concerned with the expected motivations such as having fun and the challenge associated with video games, along with various social factors. The results demonstrate that online video games are very popular for the CYP within this research and I believe the social opportunities video gaming can provide are a key influence. These social motivators are explored in further detail within Phase 2. My belief is that CYP have vastly different experiences from playing video games depending on a range of factors, such as the genre of video games they play or whether they play online video games, to name a few. I anticipated that Phase 2 would highlight these different experiences.

Chapter 7: Phase 2 Methods

7.1 Research Questions Addressed

RQ3: Why do CYP play video games and to what extent do CYP use video games (or video game devices) as a medium for social interactions?

RQ4: How do CYP reflect upon the impact of their, and others, use of video games?

7.2 Sample

A total of 27 participants were interviewed as part of Phase 2 of this research project. Of these 27 participants, 12 were aged between 8-10 years old (primary sample), while 15 were aged between 12-14 (secondary sample). The 27 participants were from three primary schools, and two secondary schools. Table 22 below provides descriptive information regarding the participants.

Table 22

School code	2 (Primary)	3 (Secondary)	4 (Primary)	6 (Primary)	7 (Secondary)
Number of Interviews	3	9	4	5	6
Gender Split	Males: 1 Females: 2	Males: 4 Females: 5	Males: 2 Female: 2	Male: 3 Female: 2	Males: 2 Females: 4
Age split	Year 5: 3 Year 4: 0	Year 9: 5 Year 8: 4	Year 5: 2 Year 4: 2	Year 5: 2 Year 4: 3	Year 9: 3 Year 8: 3

7.3 Sampling method

A stratified sampling method was adopted. Participants were selected from those that had already completed the questionnaires as part of Phase 1, depending on whether they, and their parents/carers, had provided consent for them to participate in Phase 2 of the research. The desirable criteria for participants included: at least one male and one female participant from each setting, and at least one participant from either Year 4 or Year 5 from the primary schools, or Year 8 or Year 9 from the secondary schools. These criteria were met in all but one of the schools (a primary setting) due to an unexpected cancellation of a date I had arranged to carry out the interviews; unfortunately, I was unable to rearrange a new date.

7.4 Design of Interview Schedule

The interview schedule (please refer to appendix 5 for a full copy) containing the semi-structured interview questions was designed to elicit the views of the participant's, while maintaining a level of efficiency due to time constraints, and the need to conduct interviews across five different educational settings. The design of the interview questions was based on various factors. Two unstructured pilot interviews were carried out (with one primary aged student and one secondary aged student) to gain a broad understanding of how CYP use video games, and how they reflect upon their and others' use of video games (please see appendix 6 for copies of these interviews). The questions were also influenced by the results from Phase 1 of the research, as I wanted to gain a deeper understanding of how video games impact upon relationships, social interactions, and children's lives generally. The questions were then refined based on feedback from my research supervisors (at the University of Exeter) along with feedback from the same teaching staff who demonstrated interest in my research, and who supported with the formatting of the questionnaire. Ultimately, the interview schedule was designed with a key focus on exploring Research Question 4: 'How do CYP reflect upon the impact of their, and other's use, of video games?' along with elements of Research

Question 3: ‘Why do CYP play video games and to what extent do CYP use video games (or video game devices) as a medium for social interactions?’.

7.5 Materials

The initial unstructured pilot interviews involved a broad selection of questions which were stored as a word document on my laptop. The responses were typed onto the document as the interviewees, and myself, spoke. The subsequent interview schedule was created as a word document that could be edited during the interviews. All the interview materials were created and stored digitally. The consent form was signed along with the consent for the questionnaires by the CYP and their parents/carers (Please refer to appendix 1).

7.6 Procedure

Members of staff from each of the schools (involved with Phase 2 of the research) were contacted by telephone to arrange dates and rooms for the interviews to take place. I provided these key members of staff with the names of the CYP I intended to interview, along with some standby participants in case some of the children were not attending on that day for whatever reason. All the interviews were conducted by myself, and the process was the same for each school: I was provided with a room and the interviews were conducted at 30-40 minute intervals (approximately). Each school had pre-arranged a timetable with the students, so they knew what time their interview was scheduled for.

Each interview would begin with me explaining the premise of the research and reminding the students of the questionnaire they had previously completed (as part of Phase 1) and that the questions within the interview were an extension of the questionnaire. I then proceeded to ensure the participants were aware that their responses would remain confidential, that they could stop and leave the interview at any point, and that their data could be destroyed should they wish to do so.

I typed the participants responses as they talked, and so the interviews involved occasional pauses to allow me to finish typing longer passages of

speech (before the interview took place, I asked the participants to anticipate being patient during certain moments of the interview). At the end of each interview I invited the participants to add or provide any further thoughts or comments if they felt anything had been missed.

7.7 Data Analysis Procedure

As the interviews were typed by myself, I omitted any unintelligent utterances (such as “erm” or “hmm”) or unanswered questions to ensure that the data was clear and concise. The interviews were then transferred out of the interview schedule and written into word documents for analysis. The thematic analysis was conducted using Braun and Clarke’s (2006) approach to thematic analysis. While IPA (interpretative phenomenological analysis) is regarded as an effective approach to analysing qualitative data focused on lived experiences (Smith, Jarman & Osborn, 1999), Braun and Clarke’s (2006) approach was more appropriate within this research due to the high number of interviews conducted, and the flexibility the approach provided; which I valued, given the complex and large scope of the research questions.
This model involved six steps, as follows:

1)- Becoming familiar with the data. This step concerns reading and re-reading the information within the interviews and noting down any early impressions.

2)- Generating initial codes. This stage involved organising the data using a systematic approach. Information was coded to begin chunking information based on meaning and with a focus on the research questions.

3)- Searching for themes. Theme within the context of this model is a pattern which captures something significant from the data (with regards to the research questions). Codes were examined to identify whether any of them could be linked to form a wider, overarching theme.

4)- Review themes. Preliminary themes were reviewed and modified to ensure that they made sense, to ensure that all information is relevant to each theme and that the data is clear in its presentation.

5) Define themes. This step involved defining what each theme is communicating and how the subthemes interact with each other, and the main theme they fall under.

6) Write up.

Braun and Clarke's (2006) approach to thematic analysis was used due to the clear structure their approach provides. Breaking down the information into several stages made it easier, and more manageable, for me to reflect on the data and group it into meaningful themes. Braun and Clarke have argued that thematic analysis should be independent of theory and epistemology and, as a result, the approach lends itself to the mixed methods approach of this research project. The data analysis was mainly conducted through the qualitative analysis software, NVivo, in addition to some further analysis using Microsoft Word. The interviews were uploaded to the software for analysis so that participant's responses could be coded, and organised into larger, overarching themes.

Examples of the codes are provided within the appendices (appendix 7) to provide some insight behind the overall approach to data analysis.

Chapter 8: Phase 2 Findings

Three overarching themes were formed from the participants responses within the interviews, these overarching themes consist of 15 subthemes, some of which are split into nodes (one particular node contains further sub-nodes). The three overarching themes, which will be simply referred to as 'themes', include 'CYP's motivation for video gaming' (6 subthemes), 'CYP's perspectives on the impact of video gaming' (6 subthemes) and, due to the vast amount of information concerning social motivators and the social impact of video gaming, 'The social aspects of video gaming' (3 subthemes) has been created as the third overarching theme. Please refer to Appendix 9 to see a copy of the overall thematic map (containing all three themes and their subsequent subthemes).

Research Questions addressed within Phase 2:

RQ3: Why do CYP play video games and to what extent do CYP use video games (or video game devices) as a medium for social interactions?

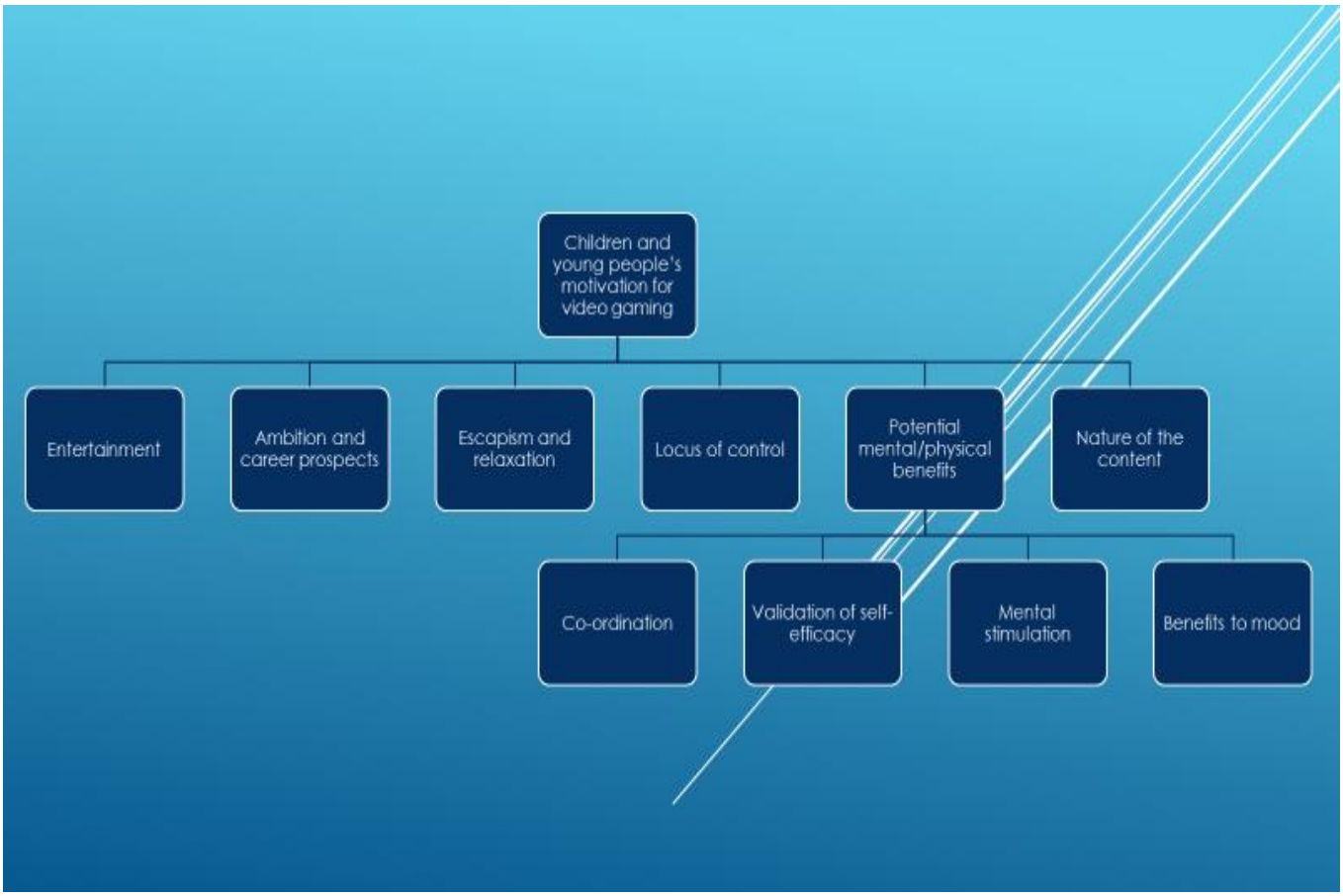
RQ4: How do CYP reflect upon the impact of their, and other's use, of video games?

8.1 Theme one: Children and young people's motivation for video gaming

Following analysis of participants' responses within the interviews, six subthemes were identified (within the overarching theme of CYP's motivation for video gaming) using the software NVivo, and Braun and Clark's (2006) model of thematic analysis. Each of the subthemes has been formed following my own analysis and interpretation as to how the participants responses could be categorised and understood. The title of each subtheme does not necessarily match specific language or phrases used by the participants, but instead they reflect the meanings (interpreted by myself) behind responses. To

provide insight regarding the participants responses, each subtheme will be presented with relevant quotes from the participants to provide justification for the selection and formation of each subtheme. All quotes are responses to questions regarding the participants motivations for playing video games. Figure 14 (below) provides an overview of theme one's structure.

Figure 14



8.1.1 Subtheme one- Entertainment

As anticipated, many of the participants discussed how they choose to play video games because of the entertainment it provides them. Participants described, in varying ways, how video games are an activity which they engage with as a way of simply having fun and because of the joy it brings them.

Participant 2a:

"*They (video games) help me to be happy because they are fun. Not really sure what else, well, I suppose they allow me to do something I enjoy."*

"When I'm bored (I play) or if I've got nothing to do."

Participant 2b:

"Well I think that Roblox is a really fun game. I play it because it's fun."

Participant 3b:

"I have no reason why I play them; I just enjoy them. They're fun aren't they."

Participant 3d:

"It (video gaming) gives you a good feeling when you're playing, especially when you get a win. It's relief, and it's fun."

Participant 3g:

"If you're not good at football or sports, then video games are fine. You are just doing something you enjoy."

*"8-9 (*rating of impact for video games out of 10*), maybe a 10. It's not a priority but it's a great form of fun. I can't think of many activities where you can just turn something on and have loads of fun."*

Participant 4a:

"Yes, I think it (life) wouldn't be as fun without (video) games. They're really fun and it's something to do to reward yourself. It's like a treat if you have been working hard or if all your homework is done."

Participant 3h:

"I get bored easily and I fiddle around a lot, so it (video gaming) stops me from fiddling or biting my nails."

Participant 7a:

"Well they're (video games) just something to do if I am feeling a bit bored. Like if I'm waiting around or I have nothing to do."

8.1.2 Subtheme two- Nature of the content

This subtheme relates to the participants being motivated by either the amount of content within a video game, or how interesting the content is. Participants discussed the importance of storylines within video games, the personal relevance of specific topics, and the benefits of playing video games which provide large amounts of content to explore and complete.

Participant 4c:

"Well, I love sports. I always watch football so it's fun to play as your favourite football player (in a video game). Racing (video games) is fun too."

Participant 7d:

"I like (video) games which have huge amounts of content for me to get immersed in. I like a story, it's engaging for me, interesting."

"I need a goal, a good storyline. I can't make up my own fun as you're expected to do in online video games. I prefer to have a story to follow."

Participant 6c:

"Because they're (video games) fun, they have good stories and, I just like them."

8.1.3 Subtheme three- Escapism and relaxation

This subtheme relates to the participants being motivated by the opportunity to use video games as a form of escapism and as a method of relaxation. Motivation for escapism varies between participants, with some discussing the need to forget about school, while another example describes a need to, potentially, avoid social interactions or social pressures. Additionally, some

participants reflected upon the importance of being able to engage in virtual or fantasy-based activities they cannot necessarily engage with in the real world, and opportunities to experience freedom (which they feel video gaming can provide). Various participants discussed the importance of video games as a form of relief, particularly if they feel they have had a challenging day.

Participant 3b:

> *"Well. They're all different (video games), they're quite fun to play, time to switch off from the real world."*

Participant 3c:

> *"It's great having a fun world to play in compared to this world we live in. You can do what you want, you just have so much freedom and you can forget about annoying stuff- like school or doing chores while you're playing (video games)."*
>
> *"Most people say gun games can corrupt your mind, but it's just a bit of fun. I think people are very good at separating reality to video games and realise what is acceptable in a game isn't acceptable in real life."*

Participant 6c:

> *"They (video games) let you do cool things that you can't do in real life. You can play in your own world."*

Participant 7d:

> *"I probably prefer it (video games) to real world interactions as I'm a little bit socially awkward. Social interactions stress me out. I don't actively seek to spend time with people anyway, I find it exhausting."*
>
> *"(Video) Games allow you to be yourself without feeling social pressures. Because you can have fun experiences without the necessity of seeing other people. It provides you with an activity where there is no expectation to see or meet other people."*

Participant 3g:

"Well I just love racing and shooting (video) games because it's stuff you can't do in real life. It's fun."

Participant 2c:

"Some of it (video games) can be good for learning, it can be a good break from learning. It's something fun to do when you get home from school or if you've finished your homework."

"I think (video games provide you with) a break from learning, refreshing your brain, and a chance to wind down."

Participant 4d:

"Yeah, I'd really miss it (video gaming), like a lot. It's just a good way to unwind at the end of the day, I think. Like, just being able to relax and chill, without having to think too much. I don't know why it works, I guess we just like looking at screens."

8.1.4 Subtheme four- Locus of control

A smaller subtheme, but nonetheless one I felt is important to include, locus of control refers to participants responses who discussed video games in a way providing them with a way of experiencing control.

Participant 3g:

"TV isn't as interactive. You can't control what happens on the screen (compared with video gaming)."

Participant 3h:

"You don't do anything when you watch TV, you have to think when you play video games. You are controlling what is happening aren't you."

Participant 4d:

"Because I think TV is boring. I just think video games let you do what you want without any bad consequences."

8.1.5 Subtheme five- Potential mental or physical benefits

This subtheme relates to the participants being motivated by the potential mental or physical benefits they can experience or gain through video gaming. This is the broadest subtheme and contains four separate nodes representing the variations in the participants responses for this subtheme. These four nodes include: Co-ordination, mental stimulation, benefits to mood, and validation or self- efficacy.

Node one- Mental stimulation

Participant 2a:

> *"Strategy (video) games also make me think a lot (when asked about their motivation). The games I play are good for my brain as I have to think all the time. I think because I am always thinking and doing tricky games."*

Participant 3a:

> *"It (video gaming) sparks ideas in my mind about making my own video games (when asked about their motivation). It can help you be creative."*

Participant 4a:

> *"Prodigy (an educational video game) helps me with my learning and my education, I choose to play it, it's not like my parents are there telling me I have to play learning games, I actually think it's fun."*

Participant 7e:

> *"Sometimes I play brain training because it's educational- stimulates my mind."*

Node two- Validation or self-efficacy

Participant 3a:

“Yes, I’d say I’m better than the average player and it makes me feel good about myself when I can win games. “

Participant 6a:

“Maybe a 7 (when asked to rate the impact of video gaming from 0-10). I think they give people happiness and fun. Something to talk about in school too. I think also, maybe for people who are rubbish at sports, video games can be good for them. “

Participant 7d:

“Because it meets competitive needs- like when people play COD (Call of Duty) competitively, it’s a way of proving you’re better than other people. Validation for some people. A sense of being better. Confirming to themselves that they are good at something. I don’t see a problem with that.”

Node three- Benefits to mood

Participant 3h:

“Minecraft (I play), because it cheers me up if I’m sad.”

Participant 7f:

“Well, they (video games) make me happy, they are fun.”

Participant 6b:

“(Video) games are about the fun for me. I just want to have fun and be happy.”

Node four- Co-ordination

Participant 4c:

“It improves co-ordination too.”

8.1.6 Subtheme six- Ambition and career prospects

This subtheme was of specific interest. Participants reflected upon how they are motivated to play video games due to the potential monetary rewards competitive video gaming can bring. Several participants made it clear that this is something they are aiming to pursue. Once particular participant provided some insight to how they weigh up the importance of competitive video gaming, compared with the importance of their learning.

Participant 3d:

> *"I want to try and play competitively; I use twitch too so I can stream my games. I want to make money from it."*

Participant 6d:

> *"If you're good at it ('Fortnite: Battle Royale') then there are Fortnite competitions and you can get loads of money for winning it."*
>
> *"Not yet as I'm not old enough, but I am definitely going to."* – When asked if they play 'Fortnite: Battle Royale' to win money.

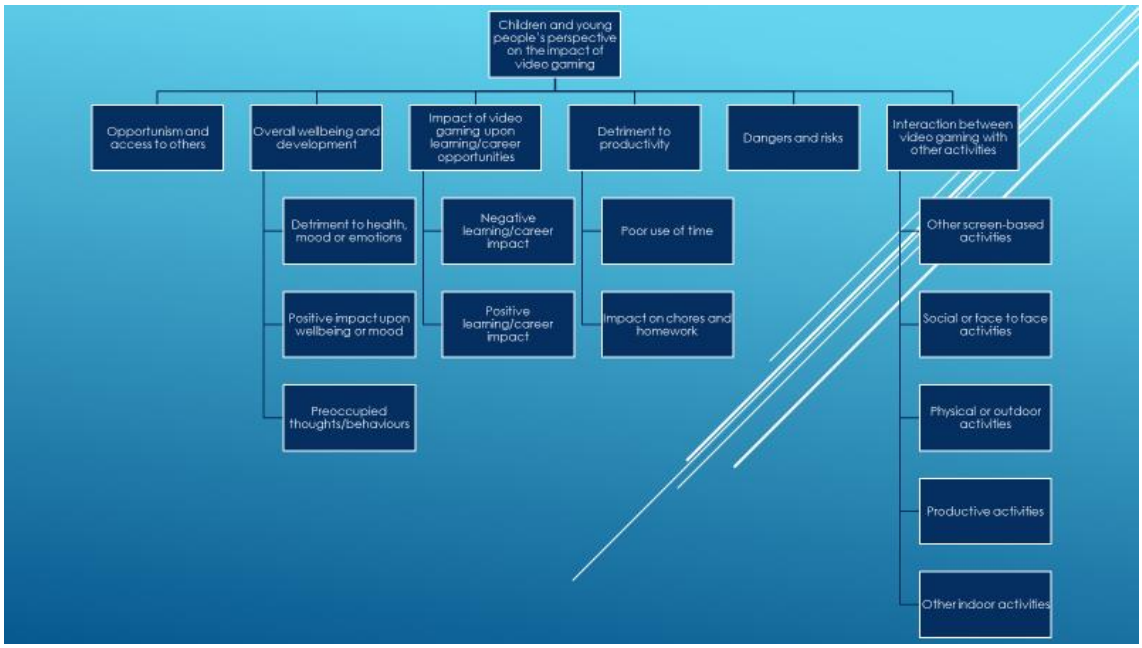
Participant 7f:

> *"I want to get good at them and be competitive. I want to be the best so I can get money. You can win competitions on video games such as Fortnite, which can mean you get between £100,000 to millions! That's what I'm aiming for."*
>
> *"You have to take a step back and weigh it up. If you genuinely think you're good enough to win big, that is a better prospect than doing well in my exams. Although saying that, I do work hard when I have to at school. I'm in the top set for everything. My parents know I revise hard when I need to."*

8.2 Theme two: Children and young people's perspective on the impact of video gaming

While theme one explores the reasons why CYP are drawn to video gaming as an activity (along with aspects of theme two), theme two explores how CYP reflect upon their use, and the impact, of video gaming. Rather than considering the reasons which initially motivate CYP to play video games, this theme covers how they reflect on the impact of video games regardless of their motivations. Following analysis of participants responses within the interviews, six subthemes were devised within this overarching theme. An overview of theme two's structure is provided below in figure 15.

Figure 15



8.2.1 Subtheme one- Opportunism and access to others

This subtheme relates to participants discussing the benefits of video games as entertainment during adverse conditions (such as weather). Participants also extended on this point by discussing the importance of video games as a method for accessing others when it is difficult to meet in person and when other, more physical/active, activities are not possible. This topic was discussed by six of the participants within Phase 2, who felt that video gaming was an important activity for such occasions.

Participant 4c:

"I typically play more (video games) in the winter as the weather's not good."

"No, they're (video games) probably not as good but it's hard to meet up all the time." – When asked whether interactions through video gaming are the same as meeting someone in person.

Participant 4d:

"Well they (video games) can help you talk to friends if they are far away."

Participant 6b

"I think video games are still good as they let you speak to other people when they're not nearby."

Participant 7c:

"It's probably a positive for people who don't live near their friends though, a good way to contact each other. Like if someone lives quite far from their school and their school friends."

8.2.2 Subtheme two- Dangers and risks

This subtheme relates to participants discussing the dangers and risks the participants believe to be associated with video gaming. Participants discussed a wide range of concerns including cyberbullying, exposure to expletives, and their feelings about strangers. It is important to reflect and recognise that many of the participants thoughts and ideas come from advice and warnings they have received from either parents or school which some participants acknowledged.

Participant 2a:

"Only if you know them. We are told (at school) that it can be dangerous talking to people you don't know." – When asked about talking to others through video games.

"I think it's dangerous as you can speak with someone you don't know. They are good for speaking with friends though, but only if it's safe- bad people can say mean things. They insult you sometimes, you don't know what can happen so it's safer to not play with them."

Participant 3i:

"Well, that's risky (online video gaming) because you could talk to dangerous people who may try and hack you with your personal information. It's just a case of being careful."

Participant 6b:

"Some people (strangers) ask to meet up with you (via online video gaming)- can be risky, like I said, E- safety is important for staying safe."

Participant 4a:

"You might get hacked. Like if someone is trying to access your profile and use your details, they may get cyber bullied too, that's not very nice. There are just some things you have to be careful about."

8.2.3 Subtheme three- Detriment to productivity

This subtheme relates to participants' reflections upon how video gaming can negatively impact their productivity, their completion of chores and their general use of time. This subtheme contains quotes which are directly associated with productivity. Some quotes have been organised into two separate nodes which are presented below.

Participant 3b:

"To be fair it's not all that great (video gaming) because if you're on it all the time it stops you from being productive and planning. It can stop you from being productive."

Participant 4b:

"Well I think if I stay up too late playing video games, I don't get enough sleep and that can make me forget. My brain isn't good when I'm tired and learning is hard."

Node one-Impact on chores and home tasks

Participant 2b:

"Well if you play too much you might not have time to do chores and stuff. Your parents may get annoyed."

Participant 3h:

"(Video gaming has a) bad effect as I don't do the stuff I'm supposed to do, like making my bed, putting my clothes away. Basically chores." – When asked whether video games have an impact of effect on their life, or children's lives, generally.

"5, in the middle- it gives me something to do but also stops me from doing some jobs."- When asked to rate the impact of video games on a scale of 0-10 (10 being positive).

Node two- Poor use of time

Participant 3i:

"It (video gaming) can be an activity where you just waste time. It can consume more time than you expected. It happened to me."

Participant 7b:

"Yeah it (video gaming) impacts upon it (productivity) because if you play it a lot it can mean you're wasting your time. A lot or even most of your day is wasted."

Participant 7f:

"(Video gaming has) probably a bad effect. Because I'm not getting anything meaningful out of it. I could be more productive if I played less."

8.2.4 Subtheme four- Perspectives of the impact of video gaming upon learning and career opportunities.

This subtheme relates to participants' reflections upon how video gaming impacts upon their learning, and their career opportunities. This subtheme consists of two nodes which respectively reflect the positive and the negative impact the participants believe video gaming to have upon their learning and their career opportunities. The two nodes are presented separately below. To provide some context, the number of references within each node were fairly even; 26 references from 17 sources within the positive node, and 30 references from 18 sources in the negative node.

Node one- Positive impact(s)

Participant 2a:

> *"It (video gaming) also helps me focus and stay concentrated on things- you have to focus to complete the task within the game. I think the games I play have a good effect"*

Participant 2c:

> *"Some of it (video gaming) can be good for learning. It involves learning which can help in class, such as maths and literacy games."*

Participant 3d:

> *"If it comes to history, if you're playing a WW2 (video) game you can learn loads. It's more interesting than learning about WW2 in a lesson. I've learned loads about weapons- such as the Enfield rifle. You get to use that information, play missions based on historical events- it just adds another side to things that could be boring. You can learn about factual information, such as in Call of Duty World War 2; that game has honestly taught me loads more than school can. The information actually stays in my brain."*

Participant 3g:

"Most of my knowledge comes from video games. It can teach you things, you know, like factual information- the data about cars on forza is genuinely amazing, its taught me loads and I want to be an engineer."

Participant 4a:

"You can say, 'right I will do my homework then I will play some video games', that way you're organised, and you get your work done."

Participant 6c:

"If you play, you can think I want to be part of Nintendo one day or I want to be part of the Xbox company one day. If you're a super fan you can act them out and it gives you something to play or do in school. We've done drama performances based on video games. Some of the video games have really good stories, like Skylanders, it will be our first musical. I've got two solo songs."

Node two- Negative impact(s)

Participant 2b:

"I do, I probably do less homework and reading because of Roblox. Sometimes it's (homework) not as good as it could be though (because of video gaming). It can distract you from homework if you play too much."

Participant 2c:

"Yes, sometimes I play all day and don't do any learning, I forget. I put notes near my tv so I can remind myself to do all my work before playing video games."

Participant 3f:

"Yes massively (It impacts my learning), in a bad way. I rush work at the end of the school day because I'm thinking about going home and playing (video) games. It's (homework) probably not as good as it could

be because I rush it too. I always do it though."- when asked whether their learning is impacted at all video gaming, and why.

Participant 4c:

"Yeah and in a bad way as, if you're playing for too long, you don't get work done, you also get less sleep if you play too long. If you play past 9pm you can get insomnia. You may fall asleep in the lesson or struggle to concentrate. If I have played too late the night before I am tired in class, which isn't good for learning." - when asked whether their learning is impacted at all video gaming, and why.

Participant 4d:

"I have arguments about doing homework and playing video games. It affects your concentration in a bad way as I think about Fortnite rather than thinking of my work. So maybe it does affect my concentration at home, as I'm doing homework."

Participant 7e:

"I'd rather be playing (video) games so I sometimes rush my homework, I don't always concentrate on my homework because I'm thinking of what game I'm going to play. I just couldn't focus on my homework because I was thinking about video games."

8.2.5 Subtheme five- Overall wellbeing and development

This subtheme was formed based on responses which I interpreted to reflect the impact of video gaming upon the participants overall wellbeing. This subtheme contains three separate nodes which collectively provide insight regarding the impact of video gaming upon different aspects of wellbeing and development, such as mood, physical health and preoccupied/problematic behaviours/thoughts, to name a few. To provide some context and frequency information, there were 32 responses from 17 sources within the node titled 'detriment to health, mood and emotions' and 14 responses from 10 sources within the node titled 'positive impact upon wellbeing or mood'. This was the

largest subtheme within the overarching theme ‘CPY’s perspective on the impact of video gaming’.

None one- Detriment to health, mood and emotions.

Participant 2a:

> *“Makes my eyes go blurry (playing video games). It’s affecting my bedtime and my vision- according to the Doctor. I sometimes get headaches and the doctor told my Mum maybe I shouldn’t play video games.”*

Participant 2c:

> *“It’s really annoying because you have to start again (if your character perishes within a video game). No-one likes dying loads. Because I mess up which makes me angry.”*

Participant 3d:

> *“Like if you die loads or lose loads of games you just want to throw your controller.”*
>
> *“Stress, anger, (what you feel) like when you come second place in Fortnite. You’ve come so close to winning. And if you win it improves your win record, second counts for nothing which is a joke. I am getting better at stopping playing though.”*- When asked about how they feel when asked whether there are any disadvantages to playing video games.

Participant 6d:

> *“It also impacts on my football- if I stay up late playing video games then I get tired and can’t play as well. I reckon most weeks (regarding how often their football is impacted).”*

Participant 3g:

"It can lead to not eating because you're too engrossed in a (video) game. You need breaks and some people can forget and let it take over their lives."

Participant 4b:

"I don't get enough sleep. I know that, for me, If I get too close my eyes start to hurt. It (video gaming) can sometimes give me a headache. When this happens, I sometimes carry on playing, sometimes I stop."

Participant 7f:

"When you take them (video games) more seriously, they become less fun really. Fortnite used to be fun, but now I play it competitively which is stressful sometimes. I take it too seriously sometimes"

Node two- Positive impact upon wellbeing or mood

Participant 3a:

"It calms me down, and I'd say I like it because it's fun. I reckon they have a good effect. Because, like, I can I sometimes get all my anger out online (playing online video games)."

"If I've had a bad day, I can play some (video) games online and because it's fun, and because I'm pretty good at them, it makes me feel better."

Participant 4c:

"If you're stressed it (video gaming) helps you relax as you're sitting, it helps you calm yourself down, and not think about the stressful day you've had."

Participant 3c:

"They make me feel good when I play them, it's difficult to explain."- When asked to describe what they mean when they say video gaming is 'fun'.

Participant 4d:

"It (video gaming) helps me relax if I'm super stressed."

Node three- Preoccupied thoughts/behaviours

Participant 2c:

"I lost track of time because I was too addicted to the (video) game."

***"**When you can't stop doing something, like it draws you in and you forget. You forget about everything else that is going on around you. You kind of go into your own world."*- When asked why they believe video gaming is addictive.

***"**Yes, mainly sometimes."*- When asked whether it is difficult to stop playing video games.

"I can get carried away and play until really late. I enjoy it too much so I can play too much- It's too much fun so it can be really hard to turn off. 'Just one more minute, let me finish the game'- that's what I say to my Mum. She normally gets angry and then we can argue. I am trying to get better at getting off, but I do find it really hard."

Participant 3a:

"I'd only stop for tea (video gaming). I know it's not great, but I am trying to change it. Sometimes it can be quite difficult to just say 'I need to stop now'."

Participant 3d:

"I hate having to go for tea if I'm playing a (video) game. I had to rush to my tea so I could watch the Marshmello event on Fortnite. It just feels like sometimes I can get carried away and play too much. I play a lot of hours."

Participant 4b:

"My brain just focuses on the video games and I forget about everything else. I find it tricky getting off my PlayStation. When you play video

games you can get addicted and you don't want to go outside and have fun with your friends."

Participant 6c:

"I think video games are maybe, a little bit addictive. They are too fun it's hard to get off them when you're having so much fun. Especially if you're playing with your friends."

Participant 7d:

"It's hard to explain, I just really enjoy those open world games and the interactions which take place".

8.2.6 Subtheme six- Interaction between video gaming and other activities.

This subtheme explores whether video gaming is impacting upon the activities CYP choose to engage with. This subtheme is comparable in presentation to quantitative data, however, due to the difficulties in predicting participant's responses, I felt it was important to include this topic within Phase 2 of the research. Participants provided a range of responses regarding what they would do if they weren't able to play video games and these responses have been grouped into separate nodes. To provide some context, 15 of the (27) participants felt that they would engage in another screen based activity, 9 participants would engage in a social or face to face activity, 8 would engage in a physical activity, 7 would engage in a productive activity (please see quotes below for examples) and 3 would engage in other, indoor activities (please see quotes below for examples).

Node one- Other screen-based activities

Participant 2b:

"*I'd probably just watch YouTube. I watch a lot of YouTube anyway; it can be addictive."*

Participant 3c:

"*Maybe watch some videos on YouTube of (video) gaming."*

Participant 3d:

> *“I might just go on YouTube- I’d probably watch (video) gaming, ninja. Or maybe social media*.”

Participant 3h:

> *“YouTube- I’d watch Fortnite or reaction videos. Instagram too, I use that a lot.”*

Participant 7b:

> *“Probably endlessly scroll through Insta (Instagram), maybe Facebook or WhatsApp.”*

Node two- Social or face to face activities

Participant 3c:

> *“Normally I would just spend more time with my family.”*

Participant 3f:

> *“Probably, speak with my family a little bit more, maybe go out with my friends*.”

Participant 4d:

> *“Probably play outside with my friends. I mean, they’re both fun things to do (playing with friends and video gaming).”*

Participant 6b:

> *“Playing with my younger brother, or talking to poppy on facetime, she’s my sister who doesn’t live with me.”- Use of device with a screen is mentioned, however, within the context of a pro-social activity.*

Node three- Physical or outdoor activities

Participant 3a:

> *“Do sports. Go out in the back garden and practise putting and that.”*

Participant 3d:

> *“I’d love to go the skate park with my friends, or I’d do more biking. I love long distance biking.”*

Participant 7f:

> *“Play sports maybe, more sporting activities generally, go to the gym in my garage to have a break and that.”*

Node four- Productive activities (quotes provide examples)

Participant 3b:

> *“I’d do some creative things, I love art, I may do some work around the house, play my instruments. You know just normal things. I should probably do more of those things*.”

Participant 6c:

> *“I do love reading, I’d do more reading probably.”*

Participant 7d:

> *“I have other interests- I could easily find interest in playing instruments or building tech stuff. When I was a few years younger, I would have probably said yes, but I play less these days since I have started learning keyboard and the piano.”- When asked if they would miss video gaming if they weren’t able to play.*

Node five- Other indoor activities

Participant 6a:

> *“I like to play with my toys and play with my baby sister too- just playing around a lot. There are other things to do.”*

Participant 3e:

> *“I would probably hang around my dog a little bit more.”*

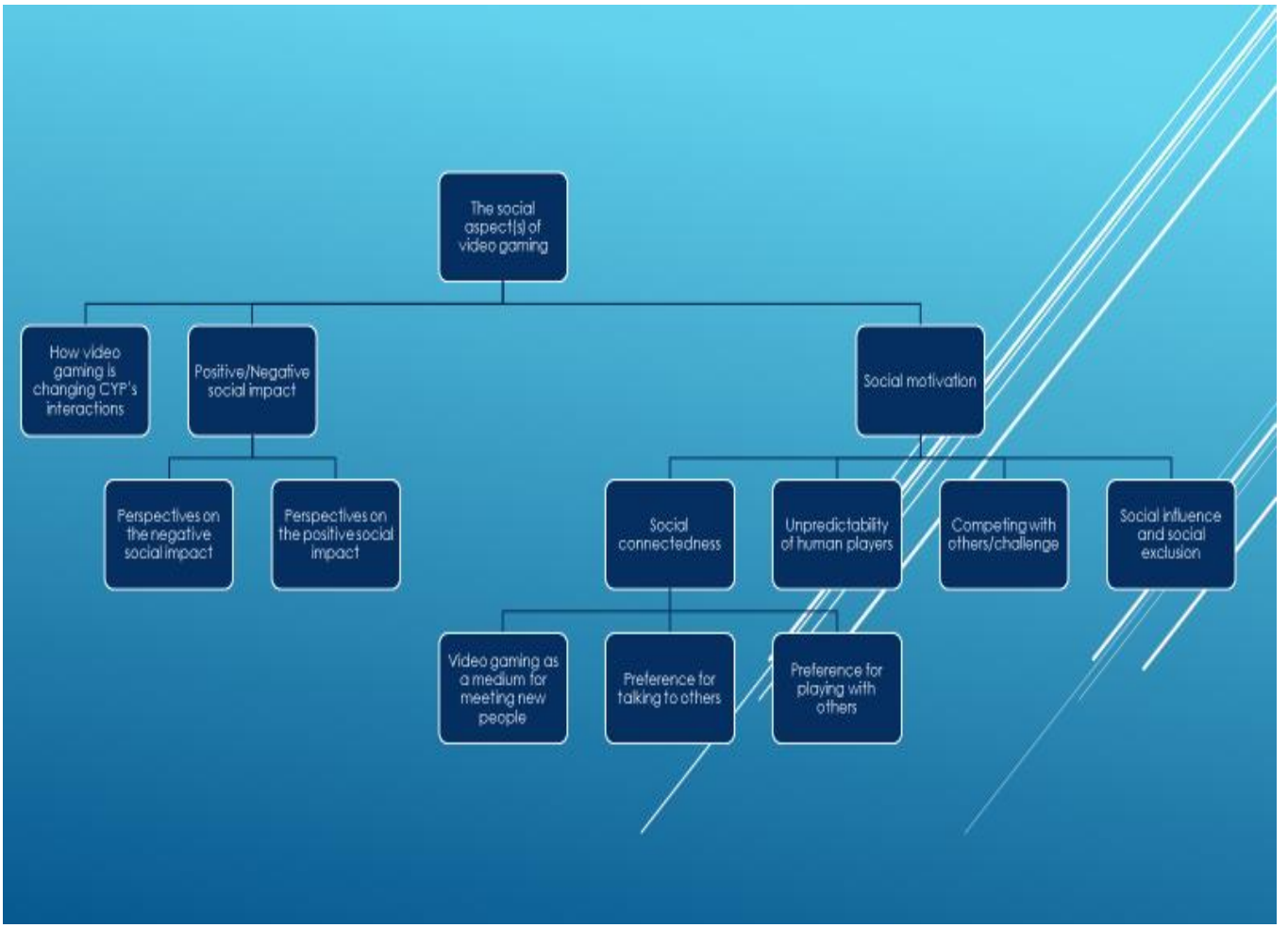
Participant 7b:

> *"Play with my dog. Probably not (regarding whether they would engage in outside activities), I'd just find something else to do indoors."*

8.3 Theme three- The social aspect(s) of video gaming

Theme three explores the various social aspects of video gaming. Throughout the analysis of the interviews, several social-based subthemes were formed. These subthemes include references to social motivators, the positive and negative social impacts of video gaming, and the way in which social interactions are potentially changing (as a result of video gaming). This is the most complex and detailed of the three themes and this is reflected within the depth and scope of each subtheme. Figure 16 provides an overview of theme three's structure.

Figure 16



8.3.1 Subtheme one- The social impact of video gaming (positive and negative)

This subtheme explores participants' reflections regarding the positive (Node one) and negative (Node two) social implications of video gaming. Participants provided their opinions regarding how video gaming can benefit and be of detriment to their social interactions, and this subtheme presents a summary of these reflections. To provide some context as to how the participants reflected upon the advantages and disadvantages of video gaming (upon their social interactions/development), there are 41 responses from 17 sources within the 'negative social impacts' node, and 58 responses from 26 sources within 'positive social impacts' node.

Node one- CYPs perspectives on the positive social impacts

Participant 3b:

> *"I suppose video gaming is just easier and it lets you speak to friends."*
>
> *"I play split screen sometimes- it stops you from having to pay to go online and you get all the social interactions when someone is in the same room as you rather than on the other end of a screen. I just prefer being in the same room as people instead of talking over the mic. You can see their face which is better, I think?"*
>
> *"Some people find it difficult to speak in person don't they, so for them it's easier. I've got a friend, and he is always more chatty when he's talking on the headset (while video gaming) because he feels relaxed. He gets stressed out in school. I can see where he's coming from."*
>
> *"Suppose it is still better than typing on a keyboard."*- with reference to speaking to others using a headset while video gaming.

Participant 3a:

> *"You're still talking and having fun. It can help you talk to your friends and be a good thing. So maybe yes, but in a good way, rather than a bad impact."*- When asked about whether video games impact upon how CYP interact with others.

Participant 2a:

> *“I think it also gives something to talk about really. Me and my friends had nothing to talk about before video games.”*

Participant 4c:

> *“It’s good to play (video games) and be happy with friends if you know them. But only if you know them and it’s, you know, safe. I think it can be good for social skills. I just think a lot of kids are probably talking more outside of school because of video games and turtle beaches (a type of microphone enabled headset). All my class seem to play Fortnite with each other after school.”*

Participant 6e:

> *“Good if you want to make new friends and talk to friends- especially when I can’t see my friends outside of school- I’m not allowed out to play! So, it’s stupid that I can’t even speak to my friends on Mondays and that. If anything, it’s best for me because I can’t see my friends anyway!”*

Participant 7d:

> *“I know people do, like my younger brother does that; he plays on his Xbox just so he can speak with his mates from school. Not for me. I suppose for some it can also be social inclusion. It’s a minefield really.”-* When asked whether they play video games for the main purpose of speaking to others.

Node two- CYPs perspectives on the negative social impacts

Participant 2c:

> *“I think some people spend too long playing (video games) and not enough time seeing each other in person. I think eye contact is good and maybe, well, when you see friends in the park or something you are exercising.”*

"'Just one more minute, let me finish the (video) game'- that's what I say to my Mum. She normally gets angry and then we can argue. I am trying to get better at getting off, but I do find it really hard."

Participant 3b:

"Sometimes it (video gaming) can be bad because you should see more people face to face. It can stop you from being productive, prevents your social experience so you don't know how to communicate properly- manners and that, you know. You're not interacting."

Participant 3f:

"Maybe it (video gaming) stops you from seeing people face to face. I think it's good to see people's facial expressions as it adds additional meaning to social interactions."

Participant 3h:

"You can get bullied; you get stigmatised if you don't have the latest (video) game etc. In school, if you don't have the latest console or game, or anything at all people will laugh at you."

Participant 6b:

"It's (online video gaming) a bit like social media because sometimes they can cause arguments- kids talk to each other who they don't know and swear at each other. I'd probably see more of my friends if I played less. That is probably the same for lots of people."

8.3.2 Subtheme two- Social motivation

This is the largest subtheme within the overarching theme of 'The social aspect of video gaming'. Participants described a variety of social motivators for video gaming. Rather than exploring the positive or negative social impacts of video gaming, this subtheme specifically explores participants' social motivators. The subtheme contains four nodes: 'Competing with others, and the challenge',

‘Social connectedness’ (which contains three sub-nodes), ‘Social influence’, and the ‘Unpredictability and realism of human players versus AI’.

Node one- Competing with others and the challenge.

Participant 3d:

> *“It’s (online video gaming) more competitive. I prefer playing against real people, AI can be too easy. It’s a lot more rewarding playing against real people. I just think it’s cooler competing against other players and showing them what you got. An AI doesn’t care if you beat them. It’s hard to explain but it is just better.”*

Participant 3e:

> *“Singleplayer just gets really boring. It’s basically the same thing over and over again (singleplayer), but multiplayer isn’t (boring), that’s fun. You can play with your mates, do cool stuff, improve your stats- like how many kills or wins you get, which everyone can see.”*
>
> *“Because they (other players) can see how good you are. I don’t know. I guess we like to show off. Robots and AI can’t understand stats.”*- When asked why it is important for people to see your ‘stat’s (statistics relating to your performance within a video game).

Participant 3f:

> *“I prefer online video games because it’s more competitive playing against people compared with bots. It’s more rewarding playing against people compared with bots, with bots you choose the difficulty, so you know what to expect.”*

Participant 4d:

> *“I play to win, so I like the challenge.”*
>
> *“Probably beating other people online. The challenge.”*- When asked about their main reason for playing video games.

Participant 6d:

"You can show other people how good you are. I also think playing (video) games is just more fun when you play with your mates."

Node two- Social influence and avoiding social exclusion

Participant 3g:

"I used to watch my dad play (video games) when he was younger, and he's given it to me. I use it to have some fun, instead of playing football, I do something that's pretty cool."

Participant 4b:

"My friends are always on it (online video games). I'd feel left out if I couldn't join them when they're playing."

Participant 6e:

"Probably just because everybody else plays them, and because it's fun, if I'm bored. If all my friends are playing it then yeah, I would feel really left out- all my friends play it all week. "- When asked why they play video games.

Participant 7e:

"Yeah, because people always talk about (video) games, Pokémon GO was really big a little while ago and I'd miss out on conversations if I never played it."

Participant 3c:

"Yeah sometimes, I'd feel like I'm missing out from playing with my friends. I'd miss the social side of things really. We all play Fortnite together quite a lot."- When asked whether they would be missing out if they couldn't access video games.

Participant 6c:

"Well if other's play (video) games and say, 'this game is fun and that game is fun', it would make me feel jealous. People talk about Fortnite a lot. I do play that game too."

Participant 6d:

> *"I play them (video games) because everyone else plays them. They're the most popular video games. If there's an update I will want to play straight away.*
>
> *"Well when games are updated new stuff comes out for them. And so, everyone will then be playing that game everywhere. You don't want to miss out!"*

Node three- Unpredictability and realism of human players versus AI (artificial intelligence characters within video games)

Participant 3b:

> *"I'm not sure. I think you get more out of the game (from playing against real people). It's more interesting. You never know what's going to happen."*

Participant 3g:

> *"I always do story mode then I do it online. It feels more realistic when there are other real people. It's more rewarding beating someone real compared with an AI."*

Participant 6e:

> *"Solo isn't as fun, there's nobody to speak to, it's more fun to play against other real people (through online video gaming). Solo is boring, robots and ai and stuff."*

Participant 3f:

> *"People can be good and bad at (video) games (compared with AI) so you don't know how it's going to go."*

Participant 7f:

> *"Because you're playing against other people, its more exciting. I suppose you're facing real people so you can compare how good you*

are to them- you can't really do that with AI. To talk to people, friends also I think."- When asked why they play online video games.

Node four- Social connectedness

This node is split into four further 'sub-nodes' in order to effectively and clearly convey the different aspects which collectively form the node 'social connectedness'. To provide some overall context regarding participants' responses, there were 31 references from 20 sources regarding preferences for playing with others, there were 34 references from 17 sources regarding preferences for talking to others (through video gaming), while there were two references from two sources regarding the importance of video gaming for meeting new people.

Sub-None one- Preference for playing with others

Participant 2a:

"Sometimes, I usually see who is online and if my friends are on then I sometimes play with them." – When asked whether they play online video games.

"Probably because I can play with my friends. It gets a bit boring not playing online sometimes. Maybe it's more fun, I'm not sure."- When asked why they play online video games.

Participant 3b:

"It's more fun (online video gaming), you can socialise. More fun playing with or against other people compared with computers or AI. It lets you keep up to date with what people are doing, making memories with friends."

Participant 3d:

"*I love shooters and battle royale (video) games because you can prove yourself and play with your mates."*

"So basically Marshmello, the music person- artist, was performing live on Fortnite. They had this virtual disco or like, well, in the style of a live gig. You could visit it with your player and meet your mates there and that. It was pretty cool. I hope they do more."- Participant discussing a live music event, within an online video game, they attended (virtually) with their friends.

Sub- Node two- Preference for talking to others

Participant 2a:

"Yeah, I speak (to) my friends although I don't have a headset yet, which is annoying. Yes, I think that's the main reason I go online."- When asked if they ever play video games to talk to friends.

Participant 3c:

"Mainly to play and talk with friends. We have lots of conversations about lots of funny things. The conversations are more funny because we're all playing the same thing. We talk about the (video) games we played last night all the time in school. A good topic of conversation, I think. Maybe not for those who don't play it or enjoy playing, I suppose they could feel left out. Or maybe they just don't have a clue what we're on about. Most of my friends play anyway."- When asked why they play video games.

"Yeah all the time. "- When asked if they ever play video games to talk to friends.

Participant 3f:

"So, I can speak to my friends. Mainly (mainly plays) on my VR (virtual reality-based video game) as that's what my friend goes on at the moment. I don't play because I enjoy the game but because my friend goes on that specific game. I also like talking to friends when I play."- When asked why they play video games.

Sub- Node three- Video games as a method for meeting new people

Participant 4d:

> *"It (online video gaming) can be good for speaking to new people too, as long as you're safe."*

Participant 6a:

> *"You can make new friends."*

8.3.3 Subtheme three- How video games are impacting upon CYP's social interactions (wider context)

This subtheme concerns participant responses which, I have interpreted to, indicate potential changes in the way CYP's social interactions take place, as a possible result of video gaming. Many of the participants' responses demonstrate reflection regarding the impact of video gaming upon how CYP interact with each other.

Participant 4c:

> *"It's Important for lots of kids in my class (video gaming). They like to play Fortnite together and talk about it in school."*

Participant 7b:

> *"Like some people spend a lot of time playing video games and they only talk about video games (in person). I think lots of boys in my year get like that with Fortnite.*
>
> *"They (video games) can give you a topic of conversation (in person)."*

Participant 7e:

> *"I think so (video games can be positive for social interactions), you don't actively make an effort to see each other in person to meet. I suppose it's worse because you're not getting fresh air, and you're not active."*

Participant 3b:

“Maybe that’s not great socially, like cause everyone else will be playing a different game to you.”- When asked whether there are disadvantages of not playing the latest video game.

Participant 7e:

“Yeah, because people always talk about (video) games, Pokémon GO was really big a little while ago and I’d miss out on conversations if I never played it.”- When asked whether they would be missing out if they didn’t have access to video games.

Participant 3c:

“We talk about the (video) games we played last night all the time in school. A good topic of conversation I think.”

Chapter 9: Phase 2 Discussion

This discussion will aim to understand, and provide context around, the qualitative data provided by the 27 interviews undertaken as part of Phase 2. The discussion will be divided into three sections based on the research questions which the overarching themes from Phase 2 specifically address, followed by an overall analysis and conclusion of the Phase 2 data. This final section will aim to identify how the data fits within the project and how it links to the wider literature. These individual sections will be presented in the following order:

1) RQ3: Why do CYP play video games and to what extent do CYP use video games for social reasons?
- Analysis of overarching theme one: Children and young people's motivation for video gaming
- Analysis of overarching theme two: The social aspect of video gaming

2) RQ4: How do CYP reflect upon the impact their, and other's use, of video games?
- Analysis of overarching theme three: Children and young people's perspectives on the impact of video gaming

3) Overall analysis and conclusion of the Phase 2 data

9.1 Analysis of overarching theme one: Children and young people's motivation for video gaming

Entertainment and reducing boredom

(Theme one, subtheme one)

As demonstrated by the large number of subthemes, for this sample of participants there are numerous motivating factors as to why CYP play video games. This discussion explores the motivating factors which are not (primarily) based around the social elements of video gaming, but instead focus on the other, plentiful motivating factors that were identified through the interviews.

As anticipated based on Phase 1 findings, 26 of the 27 participants discussed, in varying detail, their motivation stemming from the need to experience fun, entertainment and to prevent boredom. As Oliver et al (2015) highlighted, video gaming is essentially a form of entertainment and so it comes as no surprise that participants use video games as such. It is also possible that many of the younger participants who were interviewed may have struggled to reflect upon their motivations and so, identifying simplistic motivators such as fun, enjoyment, or 'something to prevent boredom' would be expected. Without the support from a skilled professional who can assist in eliciting motivations and encourage reflection, it is possible that a deeper level of understanding is required to identify motivating factors. It is useful to acknowledge that participants discussed their motivations before being asked for further elaboration or consideration which is explored later within this discussion. Participant 3g's comments were of particular interest to me:

> *"If you're not good at football or sports, then video games are fine. You are just doing something you enjoy."*
>
> *"8-9 (rating of impact for video games out of 10), maybe a 10. It's not a priority but it's a great form of fun. I can't think of many activities where you can just turn something on and have loads of fun."*

Their comments referred to their perceived importance of video games as an enjoyable activity, particularly for CYP who are not proficient at physical activities, such as sports. Participant 3g's viewpoint demonstrates that, to their knowledge, there are few other activities which allow such easy access to entertainment. I interpret their perspective to suggest that other forms of entertainment are not as accessible; such as sports, which could be argued (typically) require equipment and physical access to another individual. Furthermore, I believe it could be considered that some video games have more

in common with sports than other screen-based activities (such as television or watching a movie). Video games require the player to take an active role in what takes place within the video game, compared with the passive nature of television or the use of YouTube (Yland, Guan, Emanuele & Hale, 2015). It could be argued that the rise in popularity of E-sports (a multiplayer video game played competitively for spectators, typically by professional gamers) demonstrates the proactive nature of some video games.

Participant 4a mentioned another way in which video games are perceived by CYP, as a reward.

> *"Yes, I think it (life) wouldn't be as fun without (video) games. They're really fun and it's something to do to reward yourself. It's like a treat if you have been working hard or if all your homework is done."*

Participant 4a referred to video games as a reward once their homework had been completed. I believe this conveys how some CYP think of video gaming as an important part of, or activity, within their day. As Hidi (2016) highlighted, a reward is typically something high in value to people and children, indicating the potential importance of video games for some CYP.

As discussed in Phase 1, many of the participants' responses can be viewed through the perspective of various psychological theories. Many of the participants described video gaming as 'fun' and praised video games for being a rewarding activity. It is certainly possible that many of the participants have experienced 'flow' while video gaming, particularly those who described video gaming as an activity which is engaging, rewarding and difficult to stop (once started). Sherry (2004) described how flow is regularly experienced by video gamers and this is demonstrated through the intrinsic value of video gaming; evidenced by video gamers desire to continue playing for long periods of time. Furthermore, the participants' responses provide additional evidence towards our distinct need for entertainment, with video gaming in this instance being that form of entertainment in fitting with the 'uses and gratification' theory (Sundar & Limperos, 2013).

Nature of the content

(Theme one, subtheme two)

For some participants, it appears as though they were motivated by either the amount of content within certain video games, or the type of content provided (i.e. nature of the storyline or themes within the video game). I interpreted this subtheme to include several motivating factors which were evident through the participants' responses. I felt that participant 7d's perspective indicated that some CYP may be motivated by the structure and linearity of certain video games:

> *"I need a goal, a good storyline. I can't make up my own fun as you're expected to do in online video games. I prefer to have a story to follow."*

Such a statement contributes to our understanding of the numerous needs which video gaming, as an activity, can address. For this participant, they could be conveying a lack of personal imagination, or an intrinsic need for structure/linearity, which video gaming can provide. As evidence has acknowledged, many CYP who present with difficulties managing overwhelming or environments (or have communication/interaction difficulties), require activities which are structured and orderly (Neuberg & Newsom, 1993).

When asked to reflect upon the important factors when purchasing a video game, 46.2% of the participants felt that cost is important, 32.9% felt that quality of the campaigns/missions (of video games) is important and 31%% felt that the amount of content is an important factor. I interpret this information, combined with the responses within Phase 1, to highlight the importance in value for money for CYP, and the importance of playing video games which reflect the premium paid for them; either through the amount of content they provide, or the quality of the content (such as the quality of the narrative). As certain video games have demonstrated, such as Red Dead Redemption 2, many titles receive huge praise for their storylines/narratives (Jeffrey, 2018), and I believe the impact of these video games is reflected through the participants' responses (participant 6c):

> *"Because they're fun, they have good stories and, I just like them".*

Escapism and relaxation

(Theme one, subtheme three)

I felt that 'Escapism and Relaxation' (as a subtheme) reflected the way in which many CYP use video games, and why they are motivated to play video games. For some participants, it seemed that the opportunity to engage in virtual activities which they cannot engage with in the real world was important (participant 6c):

> "*They let you do cool things that you can't do in real life. You can play in your own world."*

For participant 6d the escapism was important for avoiding or escaping social interactions with others:

> *"I probably prefer it to real world interactions as I'm a little bit socially awkward. Social interactions stress me out. I don't actively seek to spend time with people anyway, I find it exhausting."*

For this young person, it appears as though video gaming is an important activity for providing them with entertainment, while ensuring their social interactions were limited (which they find challenging). As the discussion regarding the 'social aspects of video gaming' will demonstrate later, video gaming can be a vastly different activity for different CYP. While some CYP use video gaming primarily for social reasons, others use it to avoid/replace social interactions. Ultimately, the flexibility within video gaming supports the notion that video games can meet different psychological needs of different people (Ryan, Rigby & Pryzbylski, 2006). It could be argued, that as video gaming continues to develop as an industry, the activity will meet a wider range of needs. For participant 3g, their reference to "*racing*" and "*shooting*" could imply that playing video games reduces their need to engage with such activities in real life:

> *"Well I just love racing and shooting games because it's stuff you can't do in real life. It's fun."*

Alternatively, it could also infer that video gaming is an activity which is currently satisfying those specific needs, until they have access to both activities in the

future. Concerning the ‘relaxation’ aspect of this subtheme, certain participants responses indicated that the escapism is important for allowing them to relax, and allowing them to reset themselves after a day of learning at school (participant 2c):

> *“I think a break from learning, refreshing your brain, and a chance to wind down.”*

However, as this discussion will explore later, while video gaming may be a positive way to experience a break from learning, others feel that the time they spend playing has a significant impact upon their learning (such as the completion of their homework).

Locus of control

(Theme one, subtheme four)

A small number of participants made references to using video games as a way of exerting control or the importance of the control video gaming can provide. Such motivations could be linked to aspects of the ‘self-determination theory’, particularly the notion of controlled motivation, which could potentially be provided through video gaming. It appears that, for some CYP, video gaming allows them to witness and experience the process of cause and effect through their actions. As research has demonstrated, maintaining belief that your actions can impact your environment is important (Gecas, 1989) for emotional wellbeing, and I would argue that video gaming is an activity which provides opportunity for doing so. Furthermore, many of the CYPs references to control involved comparisons with watching television.

Participant 3h:

> *“You don’t do anything when you watch TV, you have to think when you play video games. You are controlling what is happening aren’t you.”*

Participant 4d:

> *“Well no, because I think TV is boring. I just think video games let you do what you want without any bad consequences.”*

It appears that CYP enjoy the proactivity inherent with video games (Yland, Guan, Emanuele & Hale, 2015), compared with the passive nature of watching television or movies, as noted within the 'entertainment and reducing boredom' subtheme. The comment (above) from participant 4d is one which I feel could be misinterpreted. It could be inferred that they seek activities which could be either illegal or dangerous in the real world. However, my interpretation within the context of the interview was that video gaming allowed them to have control over their actions, and to experience the feeling of having an impact. Furthermore, it is useful to reflect upon participant 3c's perspective (below) when considering the disparity between actions within video games, and behaviours in the real world:

> *"Most people say gun games can corrupt your mind, but it's just a bit of fun. I think people are very good at separating reality to video games and realise what is acceptable in a game isn't acceptable in real life."*

Potential mental or physical benefits of video gaming

(Theme one, subtheme five)

As described within the findings section of Phase 2, this subtheme incorporates four separate nodes based on how I felt the participants responses could be categorised. These nodes include mental stimulation, validation or self-efficacy, benefits to mood, and co-ordination. It was interesting to hear the participants describing how the mental and physical (potential) benefits of video gaming as direct motivators. It demonstrates a level of reflection and informed decision making on behalf of the participants. Of the four nodes, mental stimulation contained the most references by participants (8 references from 5 participants). Within the context of this node, mental stimulation either referred to video gaming inspired creative thinking within the participants (participant 3a):

> *"It sparks ideas in my mind about making my own video games (when asked about their motivation). It can help you be creative."*

Or the stimulation provided by education- based video games, which participants felt were important as a contributor towards their learning or their education.

Participant 4a:

> *"Prodigy helps me with my learning and my education, I choose to play it, it's not like my parents are there telling me I have to play learning games, I actually think it's fun."*

As (Funk, 2000) acknowledged, creativity can inspire creativity, and some of the participants' responses appear to imply that they believe this to be the case. This node highlights the way in which CYP are drawn to video gaming due to potential cognitive benefits; further evidence as to why video gaming can be a very different activity from one young person to another.

Four references from four different participants were grouped into the node 'validation or self- efficacy'. As is the case with many sports, it appears as though some of the participants use video gaming as a way of feeling positive about their own abilities. Participants described how video gaming can help them to feel better about themselves. Comparing their skills in a video game against others is one way of achieving this; something that is only possible through online or multiplayer video gaming.

Participant 3a:

> *"Yes, I'd say I'm better than the average player and it makes me feel good about myself when I can win games."*

Participant 7d:

> *"It's a way of proving you're better than other people."*

I would argue that for some CYP, video gaming allows them to experience aspects of success, developing their self-worth, and it can help them identify as a capable individual, who has a strength in a particular aspect of their life. I believe it is important to recognise that for some CYP, their proficiencies within video gaming could be one of their (identified) key strengths.

While the node 'benefits to mood' only contains a brief selection of statements from participants I felt it was important they were included to provide

some context around why CYP choose to play video games. Four participants referenced video gaming as an activity which either allows them to experience happiness, or an activity they choose to engage with if they are feeling sad:

Participant 3h:

"Minecraft (I play), because it cheers me up if I'm sad."

Participant 6b:

"Games are about the fun for me. I just want to have fun and be happy."

If CYP feel that video gaming can improve their mood, or reduce the experience of difficult emotions, I feel it is important to reflect these perceptions within this discussion. These perspectives from CYP reflect research which have highlighted experiences of 'flow' through video gaming. Jin (2012) suggested that highly skilled video gamers can experience high levels of flow due to the successful experiences video gaming can provide for them (based on the balance between challenge and success).

The final node within the subtheme of 'potential mental and physical benefits' was formed based on two participants' comments regarding the benefits video gaming has upon co-ordination. I assumed this to refer to fine-motor control, an area of development which research has demonstrated video gaming can impact (Borecki, Tolstych & Pokorski, 2013). Once again, it is important to recognise that participants discussed co-ordination as a motivating factor for playing video gaming, rather than an impact. Despite these positive intentions, I am fully aware that whenever conducting qualitative pieces of research, participants are sometimes willing to make comments, or in this case discuss motivations, which do not reflect how they truly feel. Furthermore, it is important to clarify that certain participants acknowledged their teachers had discussed the benefits and disadvantages of video gaming with their class, and so referencing benefits such as 'co-ordination' may only reflect what they have heard, rather than how they felt or what they had experienced.

Ambition and career prospects

(Theme one, subtheme six)

Several participants discussed their ambitions to become a ‘professional video gamer’ (playing video games competitively to earn money from competitions or sponsors). Such ambitions suggest that some CYP may experience difficulties when trying to balance their school work with their video gaming pursuits.

Participant 7f:

> *“You have to take a step back and weigh it up. If you genuinely think you’re good enough to win big, that is a better prospect than doing well in my exams.”*

Experience of working with families has led me to believe that many parents’ understanding of video games and their impact is fairly limited, a notion supported by Griffiths (2010). Additionally, due to the developing industry of E-sports, I anticipate it being difficult for CYP to justify how they balance their learning with their video gaming, (in light of their ambitions) to their parents. Regardless of these difficulties, professional video gaming was something which several of the participants felt was a priority to them, and something they wished to pursue. Many successful E-sports professionals are accessible through sites such as YouTube, and Twitch (a popular online service for watching and streaming digital video broadcasts), and as Hamari and Sjöblom (2017) discussed, obtaining a fan base (or subscribers) through such platforms is important for revenue and reputation.

9.2 Analysis of overarching theme two: Children and young people’s social motivation for video gaming

This part of the discussion will aim to explore the data collected and presented within the findings section regarding the social aspects of video gaming. This part of the discussion will be split into three sections based on three separate subthemes which were identified as part of this overarching theme.

The social impact of video gaming

(Theme two, subtheme one)

A key focus of this research project was identifying whether CYP feel that video gaming has a positive or negative impact upon their social interactions and their social development, if any impact at all. As the findings conveyed, many of the CYP within this research project presented with a range of opinions on the matter, with a large portion of their opinions focused on the advantages/disadvantages video gaming has upon their social interactions. One of the topics which was discussed by numerous participants was the way in which video games provides them with a topic of conversation. This includes the importance of having a joint focus to work towards and talk about while video gaming, and having something to talk about when they meet again in school:

Participant 2a

> *"I think it also gives something to talk about really. Me and my friends had nothing to talk about before video games."*

Many participants felt that online video gaming provided them with additional opportunities to speak to their peers after school. Due to the nature of online video gaming, many CYP use microphone capable headphones to speak with each other while video gaming (Smith, 2009) and as a result, it could be argued that CYP are engaging within better quality interactions than if, for example, they were speaking through social media using a keyboard; particularly when considering the teamwork, strategy and co-operation involved with many online video games (Nardi & Harris, 2006).

Participant 3b:

> *"It is still better than typing on a keyboard."*

Evidence has demonstrated that conversations conducted through typing (using keyboards) interrupts the flow and context of communication compared with verbal conversations (Dowell, Stubbe, Scott-Dowell, Macdonald & Drew, 2013). Regardless, it is still important to acknowledge that communication through online video gaming still lacks the use of eye contact and non-verbal the communication, unless camera technology is used.

The participant responses indicate that it is not only online video gaming which can contribute towards social benefits. For example, one participant discussed the social advantages of playing video games in the same room as another player through what is known as split-screen (or local co-op) video gaming:

Participant 3b:

> *"I play split-screen sometimes, it stops you from having to pay to go online and you get all the social interactions when someone is in the same room as you rather than on the other end of a screen. I just prefer being in the same room as people instead of talking over the mic. You can see their face which is better, I think."*

This example highlights the importance of activities which allow CYP them to interact with others, regardless of whether these interactions take place online or not. Blum-Ross and Livingstone (2016) have demonstrated increases in screen use by families within the UK. They acknowledge the reduced interactions families are experiencing, as a possible result of their screen use (such as television). However, I would argue that a distinction needs to be made regarding the type of screen activity, and the level of social interaction involved with that activity. Split-screen video gaming could be argued to be a more proactive and sociable activity, compared with passive screen-based activities (Yland, Guan, Emanuele & Hale, 2015).

Furthermore, Phase 2 identified that, for some CYP (who may present as shy, or anxious), video games may provide a less intense, more comfortable medium for social interactions to take place. Participant 3b provided some valuable insight to the experiences of their friend:

> *"I've got a friend, and he is always more chatty when he's talking on the headset (while video gaming) because he feels relaxed. He gets stressed out in school."*

As noted, there were plenty of opinions provided by the participants with regards to the negative social impact of video gaming. These reflections concern their own experiences, and their thoughts on others who engage with

video gaming. A key concern for participants, was the lack of face to face contact with other individuals as a result of video gaming. While it is important to acknowledge that it cannot be determined whether CYP would engage in more face to face activities were they not video gaming, conversations which typically take place through video gaming do not involve eye contact or face to face interactions. While the participants struggled in justifying the importance of eye contact, and face to face interactions, their underlying feelings are supported by evidence which has demonstrated the importance of such non-verbal interactions (Mast, 2007).

Other concerns from the participants included the potential conflicts video gaming can, and has, caused. Participant 2c described how video gaming has resulted in an argument with their 'Mum' after participant 2c had asked to play for "just one more minute". As discussed within the findings from theme three, this seems to be a frequent difficulty the participants experience. Participant 2c appeared to find it challenging to stop playing video games, and this frustration was carried over to their interaction with 'Mum'. For participant 2c, they felt it was important to discuss this issue as a negative impact of video gaming, and my own experience of working with families, would suggest that they are not alone in experiencing such conflicts with parents.

Social motivation (within video gaming) and the wider impact of video games upon CYPs social interactions

(Theme two, subthemes two and three)

In addition to the motivators (for why CYP play video games) discussed within theme one of this project, there were a large range of social motivators also discussed by the participants. Due to the volume and depth of the social motivators described by the participants, they have been included within this separate subtheme, to convey the salience and importance of such motivators (and to reflect the volume of references made by participants). An important feature of online video games, for the participants, was the ability to compete and play with other players. Participants described, in detail, how playing against other players is preferable as "AI (artificial intelligence characters) can

be too easy" (participant 3d). It appears participants enjoy the unpredictability associated with human beings, which is preferable for many participants; "*you never know what's going to happen" (participant 3b).* While participants seemed to enjoy the spontaneity of competing with real players, they also felt that competing with other players allowed them to demonstrate their proficiency to other players; "*it's cooler competing against other players and showing them what you got. An AI doesn't care if you beat them*" (participant 3d). The importance of proving themselves against other video gamers was an important motivation, and this is reflected by research which acknowledges that children need to seek and attain approval or impress others (Lobel & Bempechat, 1993). Another way in which participants referenced this desire to make their skills known to other players was through their comments regarding "*stats- like how many kills or wins you get*" (participant 3e). Some of the participants felt it was important that other players could see the statistics regarding their performance within certain video games, as AI simply didn't care about such information.

From visiting the various schools to conduct the interviews, my impression was that there was a sense of community surrounding the social aspect of video games within each of the separate classes the children were part of. Participants described how many children in their classroom would play 'battle royale' based video games collectively after school and talk about their time spent playing the following day in school. It felt as though the norm was to engage in such an activity after school to avoid feeling socially isolated. One participant elaborated on this point by stating how someone may feel "*not great socially*" (participant 3b) if they did not play the latest video game, as some of their peers may be doing.

As Molyneux, Vasudevan and Gil de Zúñiga (2015) have alluded to, a range of factors such as the fear of missing out, social inclusion and social influence all play a part within video gaming. The participants discussed how video gaming is a popular topic of conversation within school; "*We talk about the games we played last night all the time in school. A good topic of conversation I think*" (participant 3d). Similarly, one participant talked about the impact of the app based video game 'Pokémon Go' which allowed players to use mobile device's GPS to locate, capture, battle, and train virtual creatures,

called Pokémon, which appear as if they are in the player's real-world location. The participant discussed how they would "*miss out on conversations*" if they had not played the video game (participant 7e). Ultimately, the participants responses did not necessarily indicate the requirement to engage within online video games, but the importance of playing the latest video games to ensure that they could access and engage with conversations with their peers.

What was overwhelming from the participants' responses, was their motivation to play video games, specifically, so that they could either talk or play with their peers. Participants described logging onto their devices (typically video gaming consoles) to see whether their friends were online, and that would determine if they would continue to play or not. Another participant described using the video game 'Fortnite: Battle Royale' as a way of accessing an online-virtual- live performance by the music artist *'Marshmello'; "You could visit it with your player and meet your mates there and that. It was pretty cool. I hope they do more*" (participant 3d). Participant 2a described how they mainly played video games to "speak with my friends", while participant 3a discussed how used video gaming to continue with conversations they had enjoyed in school or to make memories while playing a video game with friends. Overall, my interpretation from most of the participants that were interviewed is that 1) video gaming is an important method for socialising, 2) video gaming is a more enjoyable activity when there is access to either play or talk with other players and 3) video gaming appears to have an impact upon the topics of conversations many CYP engage within at school.

9.3 Analysis of overarching theme three: Children and young people's perspective on the impact of video gaming

This part of the discussion will aim to address and interpret the findings which have been grouped into theme three. Theme three explores the participants' perspectives on the ways in which video gaming impacts upon their lives. While theme two specifically explored the perceived social impacts of video gaming, this theme includes other ways in which the participants feel video gaming impacts upon their lives, such as their learning, their productivity or their overall wellbeing. Please consider that this theme is focused on participants'

perspectives on the impact of video gaming, rather than their motivations for playing discussed within theme one (some of which overlap).

Opportunism and access to others

(Theme three, subtheme one)

The participants' responses demonstrated that, for some, video gaming is an activity which can prove beneficial during adverse conditions or challenging circumstances. I interpreted the participants responses to note the importance of video gaming when other options are limited. Participants made references to the benefits of video gaming being an easy and accessible activity to engage with when the weather is poor, or during the colder seasons of the year; assuming they are implying that physical activities are less accessible or enjoyable during such times. Secondly, participants referred to the importance of video gaming as a way of accessing others during adverse conditions or circumstances, such as poor weather, or when distance is a barrier; "*They can help you talk to friends if they are far away*" (participant 4d). During the interviews, I was able to recognise how the participants valued the way video gaming provided access to others, and an activity to engage with when outdoor alternatives are less feasible.

Dangers and risks

(Theme three, subtheme two)

Participants discussed their concerns regarding video gaming and the potential risks involved with the activity. Within this subtheme, as with others, it is challenging to determine the extent to which the responses reflect the participant's experiences or what they have learned through E-Safety initiatives within their school. One aspect which was related directly to the participants' experiences was the exposure to inappropriate and offensive language when playing online video games. For primary school aged CYP this risk is of concern due to their limited experience and exposure to such interactions; when playing online video games, I am not currently aware of any titles which can limit or specify the age range of other players they interact with. This concern extends

to the prospect of cyberbullying. A risk also discussed by participants and one which is prevalent across all forms of social media platforms, including video gaming (Yang, 2012).

Detriment to productivity

(Theme three, subtheme three)

Some of the participants were able to provide some reflective insight to the difficulties video gaming pose with regards to productivity. When asked to think of any disadvantages of video games, several participants' responses fell within this subtheme. While some participants felt that their general productivity is impacted by video gaming ("it stops you from being productive and planning"), others focused more specifically upon how video gaming impacts upon their completion of chores, and their use of time. Some of the participants felt that video gaming was a poor use of their time, and they reflected upon how they spent more time video gaming than they anticipated. My interpretation was that several participants were reflecting upon feelings of guilt, and that video gaming can interfere with more, potentially, productive activities such as revision, homework or chores (as they described). These responses reflect the work of Hodge, Taylor and McAlaney (2019) who highlighted the guilt experienced by CYP after their use of video games.

Perceptions relating to the impact (of video games) upon learning and career opportunities

(Theme three, subtheme four)

Participants felt that video gaming had a mixed impact upon their learning; with a slight skew towards the negative impacts. Participants also discussed the potential career opportunities that video gaming provides, however, as these were largely covered within theme one, they will not be repeated. One of the most frequently reported impacts was the difficulties participants have focusing on either their homework, or their school-work due to the difficulties in supressing their thoughts about video gaming. Participant's referenced difficulties with regards to their concentration and their tendency to "rush"

(participants 3d, 3f, and 7e) work as video gaming was occupying their thoughts, and the desire to play video games took precedence over completing their work to their best ability.

Participants also blamed video gaming for negatively impacting their learning due to the time they spent playing, which: 1) reduced the time they felt was available to complete homework and 2) impacted upon their sleep, which in turn affected their concentration in school. While it is likely that other variables were involved, such preoccupied behaviours and thoughts towards video gaming reflects the growing concern regarding video game addiction, which has been of particular interest in recent months (World Health Organisation, 2018). More will be discussed regarding this topic in the subtheme below.

In terms of the positive impacts, several participants described the detailed/factual information they had learned from playing certain video games. Participants made references to historical and engineering (car- based) information they learned from playing video games, and described how they had, in some cases, learned more from video games than they have done in school; "*That game has honestly taught me loads more than school can. The information actually stays in my brain*" (participant 3d). From a cognitive perspective, while it is important to acknowledge these reflections, it is also appropriate to consider literature regarding memory and learning new information. Research has demonstrated our capacity to learn information is improved when that information is of personal interest, as we typically attach more emotion to that information (Barbas, 2000). While there will be overlaps in information between video games and historical events/engineering data, it is also acknowledged that some video games trivialise and glorify certain aspects of information (Gish, 2010). Regardless, these responses do indicate that certain CYP prefer to learn information through digital platforms, and the engagement video games provide them with is positive for learning information; E.g. a CYP may feel that participating in a virtual recreation of 'The battle of Pearl Harbour' within a video game may improve retention compared with simply reading about it, or even passively watching a documentary.

Overall wellbeing and development

(Theme three, subtheme five)

This subtheme consists of several categories relating to wellbeing, and these have been split into separate nodes. This discussion will explore participants' perception as to how video games impact upon their health, their mood, along with preoccupied thoughts and behaviours some participants describe experiencing. Overall, 17 participants felt that video gaming has a detrimental impact upon either their physical wellbeing or their mood/emotions. Participants' experiences of vision difficulties and headaches reflects findings within current literature which demonstrate the impact of digital devices and screens (Rosenfield, 2016), and the development of eye strain. Furthermore, participants described emotions video gaming can induce, such as "*anger*" and "s*tress*". It was interesting to hear that, for the participants who aim to play video games professionally, the enjoyment and joy from playing was gone (or diminishing) and replaced with concern and feelings of anxiety; one participant described how "*when you take them more seriously, they become less fun really. Fortnite used to be fun, but now I play it competitively which is stressful sometimes. I take it too seriously sometimes*" (participant 7f). Other participants described the specific anger they experience when they lose a particular game; for one participant, this anger extended to the point where they "*just want to throw (their) controller*" (participant 3d).

While I recognise that video gaming is not a direct cause of reduced fitness/physical difficulties (and extremely challenging to measure), I was surprised by the sparsity of participants' responses concerning how video gaming could be detrimental to physical health, due to the time CYP are spending playing video games. While some participants acknowledged that they would engage with more physical activities if they did not play video games, only one participant made a direct comment about video gaming, and physical health; how their time spent video gaming reduces their sleep, which in turn impacts upon their performance when playing football for their local team (participant 6d).

The positive impacts (upon wellbeing and mood) discussed by participants concerned feelings of relaxation, the calming effect of video games and the general notion that playing video games "*makes (them) feel better*" (participant

3a). Some participants alluded to the idea that video gaming has a positive impact upon their mood.

The largest node within this subtheme concerns participant's recognition of the preoccupied or problematic thoughts/behaviours they experience through video gaming. This node included 46 references from 24 of the 27 participants. Participants described great difficulties when attempting to end their video gaming sessions, and they described numerous ways in which video gaming impacted other aspects of their lives, some of which have been discussed within other themes/subthemes. One participant described how their brain "*just focuses on the video games and (they) forget about everything else*" (participant 4b). Other participants referenced losing track of time or experiencing resentment when they have to stop playing video games so they could eat. Overall, such responses are of concern, and reflect the data from Phase 1, which demonstrated that 16.8% of the participants experienced a high level of video game preoccupation (problematic use/preoccupied thoughts). The qualitative data gathered within the interviews highlight the difficulties many participants are experiencing. The insight gathered through their verbal responses provides clarity, in my opinion, regarding how video gaming is having a direct impact upon some of the participants' learning, physiological wellbeing (. e.g. their eating habits) or their social development; "*When you play video games you don't want to go outside and have fun with your friends*" (participant 4b).

The interaction between video gaming and other activities

(Theme three, subtheme six)

Participants provided their perceptions and opinions regarding what activities they would engage with if they weren't able to play video games. While this subtheme is reflective of a quantitative approach to data gathering, I felt it was important to understand the narrative behind the alternative activities participants would engage with, and any reasoning they provided for their responses. While nearly all of the participants verbally suggested a few different activities they may engage with, most of the participants said they would engage in another screen-based activity; 14 participants claiming they would

access YouTube, while others claimed they would use social media platforms, watch television, or access Twitch (to watch other people play video games).

For this group of participants there is a clear preference for screen-based activities, as is the case with children generally within the UK population (Blum-Ross & Livingstone, 2016) and video gaming, it appears, would likely be replaced by another screen-based activity, should their access (to video gaming) be limited. It was interesting to hear that, for many of the participants, watching professional video gamers through either YouTube or Twitch was a popular replacement activity, for video gaming. In my opinion, this is further evidence regarding the way in which video gaming occupies the minds and behaviours of many of the participants within this research project.

9.4 Phase 2 discussion conclusion, including differences regarding age and gender

Overall, the Phase 2 data has supported the data from Phase 1, implying that many of the CYP involved within this project's sample present with problematic thoughts and behaviours towards video gaming. Additionally, I feel that Phase 2 has demonstrated the powerful social aspect of video gaming within the context of children and young people (within this study).

As explored within Phase 1, comparisons were made between male and female participants, and between primary school aged and secondary school aged participants within the Phase 2 data. Interestingly, and in line with results from Phase 1, of the 46 references (comments/responses) to video gaming as being 'addictive' or references to difficulties when restricting time spend video gaming, 34 of these references were provided by male participants, compared with 14 female participants. Similarly, 29 of these 46 responses were provided by primary school aged participants, compared with 17 provided by secondary school aged participants. With regards to the subtheme 'detriment to productivity', of the 11 references which were made about 'poor use of time' or 'impact upon chores and home tasks' nine of these were provided by male participants, and all of the responses were provided by primary school aged participants. The same theme continues when reflecting upon the overall responses from participants within theme three (the social aspect of video

gaming). 74% of responses which referred to video gaming as being positive for social interactions (in terms of talking to others, accessing others, meeting new people, experiencing social connectedness and playing with others) were provided by male participants. However, in contrast to the above Phase 2 data, the split between primary school aged participants and secondary school aged participants was relatively even within theme three (53% of responses were provided by primary school aged participants, and 47% by secondary school aged participants). With regards to all other themes and subthemes within Phase 2, there were no other disparities of note between male/female participants and primary school/secondary school aged participants.

Phase 2, ultimately, provides further evidence (in addition to Phase 1) to the notion that the social experiences gained from video gaming are more important for male video gamers, than they are for female video gamers (Rutherford, 2018). The data could also be considered as evidence that males require specific events or activities in order to socialise (to a greater extent) compared with females (Caldwell & Peplau, 1982). As highlighted, primary school aged students provided many of the responses concerned with video game addiction and difficulties when attempting to restrict their video gaming. My initial observation is that this difference could be explained by the popularity of 'Fortnite' (a video game which has been widely referenced by primary school aged CYP during my time in schools), however, this difference could also be explained by the increased interest in social media by secondary school aged participants, which could potentially reduce their interest in video gaming; as discussed by Anderson and Jiang (2018). Regardless of the reasons why, the data from Phase 2 highlights the notion that male participants and primary school aged participants are more likely to experience video gaming preoccupation, or some sort of video gaming difficulty compared with female and secondary school aged participants.

Overall, the responses from all participants have demonstrated the importance of video gaming as a means of talking and interacting with others, and the research has provided insight regarding the intricacies of the social impacts of video gaming (with regards to social influence, social connectedness and the participants' topics of conversation). Furthermore, I believe that Phase 2 has elicited various ways in which video gaming is perceived to impact the

participants' lives, including their: learning, mood/emotions, productivity, career opportunities, access to others, and engagement with other activities. As highlighted by Rutherford (2018), there is a gap in the literature which explores the social experiences within video gaming. I feel that this research contributes towards enlightening others about those experiences within young people.

Chapter 10: Phase 1 and Phase 2 overall discussion

The overall aim of this study was to gain further insight regarding: young people's experiences of playing video games, how young people are using video games, their perceived implications of video gaming and investigating the extent to which video gaming impacts upon the lives of the participants within this project (in terms of problematic behaviours and preoccupied thoughts).

The mixed methods design employed within this research allowed me to explore the participants' motivations for video gaming, and their perceived implications of video gaming to great depth. Analysis of the data revealed some insightful information concerning how many young people are presenting with preoccupied thoughts/behaviours towards video gaming and young people's perception of video gaming as a social activity, and an important tool for accessing social interactions. Furthermore, this study has revealed that young people are motivated to play video games for a large number of reasons and that video gaming meets a variety of needs for different young people; e.g. for some young people it provides social escapism, whereas, for others it provides the opportunity experience success and control.

10.1 A brief summary of my research findings in relation to the initial research questions are presented below.

1) **How are CYP accessing video games and what are their behaviour patterns during their use of video games?**
   For this sample of participants, data revealed that just under 60% of participants were playing video games at least once a day, and just under a third were playing more than once a day. Just under 40% of the participants reported that they play video games anywhere between 1-6 hours (at a time) and 16.2% were playing for at least three hours at a

time. Dedicated video gaming consoles and mobile devices (such as smartphones and electronic tablets) were the most popular method for accessing video games; 78.2% and 73.4% of participants used these devices, respectively. Furthermore, 43.3% of the participants aged 12-14 and 70.9% of those aged 8-10 were accessing video games with a PEGI rating greater than their own age.

2) **To what extent is video gaming impacting upon CYP's lives (including preoccupied thoughts and problematic use/behaviour)?**
The data from the Video Gaming Preoccupation Questionnaire was used to identify average, lower and upper ranges, with regards to video gaming preoccupation. While 16.8% of the sample fell within the identified upper range, 24.6% of the primary school aged participants fell within the upper range, as did 19.4% of the male participants. A two-way ANOVA was conducted to reveal that these differences, between male/female and primary school/secondary school scores, were statistically significant; however, there was no joint interaction between gender and school type (as variables) on the scores. Ultimately, the use of the VGPQ demonstrated that (within this sample) male and primary school aged participants were more likely to experience video game preoccupation. Furthermore, 43.9% of the participants have tried to hide the amount of time they spend video gaming and 27.1% reported that they think about when they can next play video games, while at school, on a regular basis.

3) **Why do young play video games and to what extent do young people use video games as a medium for social interactions?**
The young people within this research appeared to be playing video games for the intrinsic pleasure they have experienced, and the results demonstrated that between a third to one half of the participants were playing video games for social reasons. Many participants reported that they play video games so they can speak with friends and were influenced in purchasing video games based on whether their friends had the same game and depending on whether the video game could be

played online. Furthermore, the data gathered within Phase 2 supported findings from Phase 1; many young people discussed the importance of video gaming as a medium for interacting with others. The data from both Phase 1 and Phase 2 fits with various aspects of social psychology, including the notion that human beings are social animals who will seek social interactions where possible, through different mediums (Nadel, 2013). For many young people, it seems that video gaming allows such social interactions to take place in a way which may not have previously been possible (before online, interactive video gaming became accessible). Furthermore, the data (as mentioned) supports the notion that males prefer to interact/socialise through more structured activities compared with females (Caldwell & Peplau, 1982), which video gaming provides.

4) **How do CYP reflect upon of their, and others, use of video games?** Phase 1 data indicated that most of the participants did not judge others negatively if they didn't play or couldn't access video games, however, Phase 2 revealed that many young people feel it is important to keep up to date with the latest video games to avoid feelings of social exclusion. Within Phase 1, there was a slight skew towards participants feeling that video gaming has a negative impact upon their overall wellbeing and development (37.4% vs 19.9% for positive impact), however, a high percentage of participants felt that video gaming does not have an impact upon their lives at all (42.7%). Phase 2 explored a range of ways in which video gaming impacts upon their lives in both negative and positive ways; A higher number of participants felt that video gaming has a positive impact upon their social interactions compared with the negative impacts. More participants discussed the negative impacts video gaming has upon their learning and their sleep, compared with any positive impacts. Overall, the responses from participants within both phases can be explained or viewed through a variety of psychological frameworks or lenses. As discussed, participants' responses which discussed video gaming as an opportunity to experience control fit with the 'self- determination theory', particularly with reference to the notion of

controlled motivation, as discussed by Rogers (2017). Additionally, the 'fun' participants reportedly experienced through video gaming has been linked with the 'flow theory' and Sherry (2004) highlighted the prevalence of video gamers experiencing flow due to the intrinsic pleasure of video gaming as an activity. Cognitive psychology is also featured within some of the Phase 2 data, particularly with reference to participants' comments about the visuo-spatial and co-ordination-based benefits of video gaming (that they have reportedly experienced or read about), in addition to education based video-games which some participants said they are accessing to support their learning.

10.2 Implications for Educational Psychology Practice

There is a lack of UK based research referring to the role of educational psychologists in supporting young people, parents and educational settings with regards to problematic use and impact of video gaming as a form of entertainment. My belief is that this research project highlights some of the difficulties CYP experience with regards to video gaming, including the impact (they perceive it to have) upon their learning, their focus, their overall wellbeing (e.g. sleep and mood) and their engagement with other (more productive) activities. Additionally, I feel this research provides some insightful context as to how CYP are using video games, particularly with regards to the social opportunities provided by video gaming. I ask practicing educational psychologists to consider the importance of video gaming as a medium for CYP to enjoy social interactions, particularly when considering that reduced time spent video gaming may result in increased use of other, more passive, screen-based activities (such as YouTube or Twitch).

I believe that all professionals working with CYP need to consider the vast differences in how video games are used by CYP and their different motivations for playing. As I have argued, I feel there is a responsibility to consider, not only how much time CYP spend video gaming, but whether they are experiencing social benefits from video gaming, and whether they would be able to access such social opportunities (with such ease) through other activities. Additionally, I believe that professionals based within education need to consider other

benefits CYP are experiencing through video gaming, including their self-esteem/ self-efficacy and, potential cognitive benefits (depending on the content of the video games they are accessing).

With regards to the problematic thoughts and behaviours young people can experience through video gaming, I believe educational psychologists are in a position to support families and education-based professionals to unpick the extent of such thoughts and behaviours. In line with the classification of 'Gaming Disorder' in the 11th revision of the international classification of diseases, I believe educational psychologists are well placed to help in identifying whether video gaming is having a significant impairment upon personal, family, social, educational, occupational or other important areas of functioning within young people (World Health Organisation, 2018).

Through consultation-based work, I believe educational psychologists can provide context, while supporting parents' and teachers' understanding of the benefits and disadvantages of video gaming; including the importance of understanding the specific nature as to how young people are accessing and using video games. With reference to video gaming, Educational psychologists are in a privileged position to expel any myths while highlighting any safety issues CYP are at risk of. Educational psychologists could argue (for example) that, based on the evidence from this research, a young person whose thoughts and behaviours are not preoccupied with video gaming (and maintains interest in other activities) can use video gaming as a positive way of experiencing positive interactions with friends and family.

Furthermore, I would also encourage educational psychologists to consider the psychology involved within video gaming (as a form of entertainment). The data from this research highlights the relevance of social psychology, demonstrated through the way in which many of the participants sought to use video gaming as a way of interacting with others. Many participants found that playing with or against other humans provided a sense of social-connectedness, even if they were not directly talking to other players; it appeared that playing against computer-based characters was less rewarding, less engaging, and provided reduced satisfaction. Another psychological theory which featured within this research is positive psychology, particularly when considering CYP's motivations for video gaming. As discussed, the experience

of flow could be attributed to some of the participants' responses, including those who found it challenging to restrict their video gaming time due to the intrinsically rewarding nature of video gaming (Sherry, 2004). In both phases of this research, participants were clear in communicating that a primary reason they engage with video gaming is because they find it fun, and because it is an activity that helps them to feel happy. Moreover, cognitive psychology is also prevalent within this research. Even within the specific confinements of video gaming as a form of entertainment (rather than education-based video games), participants referred to the visuo-spatial and co-ordination based benefits of video gaming. While other participants felt that video gaming supported their creative thinking, and even their ability to focus. Although, conversely, some participants also discussed video games as having a negative impact upon their concentration. Ultimately, psychology is featured throughout video gaming, in more ways than I had anticipated, providing further reasons as to why I would argue that video gaming as an activity is relevant to educational psychologists.

10.3 Limitations of this Study

Due to limitations in terms of time and resources (I was the only person conducting the data collection), it is regrettable that a larger sample of participants could not be obtained. A larger sample would have allowed for greater generalisations to populations of CYP in the United Kingdom, with regards to their use (motivations and implications) of video games. Furthermore, a larger sample of participants, across a larger age range, and a better balance of primary/secondary aged students would have allowed for greater comparisons between the two groups of students; providing greater insight to the impact of video gaming based on age.

I would also like to acknowledge that the perspectives and perceptions provided by the participants within Phase 2 of the research do not necessarily reflect their own experiences. As discussed, some of the educational settings involved within the research had provided their students with information (such as advantages/disadvantages) regarding video games, and it is challenging to determine the extent to which such information influenced the participants' responses.

As is the case with all self-reported data, it is feasible that social desirability may have influenced the participants' responses within Phase 1 of the research (Holtgraves, 2004). Participants' may have chosen to conceal information concerning the time they spend playing video games or their responses within the Video Gaming Preoccupation Questionnaire, if they felt they would be perceived less favourably. Additionally, as I understand that teaching staff (such as teachers and headteachers) supervised the completion of the questionnaires, participants' responses may have been further influenced. Participants may have been concerned that such teaching staff would have made judgements based on their responses (despite anonymity). As I wasn't present during the administration of the questionnaires, it is feasible that the participants' responses were also influenced by their peers. While it may have been a coincidence, I noticed that some completed questionnaires were very similar in their completion (from the same school and in the order I received them); it is possible some young people discussed material within the questionnaires which affected how they responded.

With reference to the 15 items (within the questionnaire) designed by myself, I have reflected upon ways in which some of the questions could have been ambiguous or challenging for some participants to access, despite the use of pilot questionnaires. With reference to Table 18 (concerning which video game genres CYP play) I feel it would have been beneficial to provide CYP with additional explanation for each genre, along with an example video game. As so many CYP selected 'battle royale' (as one of the video game genres they play), yet so few CYP selected 'MMO' (massively multiplayer online) it would appear that participants were unclear about phrase 'MMO'; as both genres can be synonymous. Additionally, the scales used to ascertain how much time the participants spent playing video games, and the frequency of their video gaming, could have been further specified (potentially using a 7-point scale). For example, with reference to the item "How long do you usually play video games for at a time?" a greater range of data could have been gathered if participants were able to respond with responses which were phrased "at least half an hour" or "at least three hours", in place of "half an hour or less" or "between an hour to three hours". Due to the phrasing of the responses (within the questionnaire) it is difficult to identify exactly how long participants were

spending video gaming (as a minimum). Furthermore, it is regretful that I did not stipulate for certain items within the questionnaires "please **only** answer these questions if you do play video games". For instance, with regards to the question "Do you judge other children negatively if they can't, or choose not to, play video games?", it would have been useful to only include the perspectives of those who do play video games.

Concerning the use of the Video Gaming Preoccupation Questionnaire, it is possible that an adapted version of the Internet Addiction Test (Young, 1998), was not measuring what I intended it to measure due to the adjustments made. However, it is important to acknowledge that adjustments were only made to aspects of the language (and not the structure of the tool) so the tool was accessible for children, and so that the focus was shifted from internet, to video gaming. As mentioned, it would have been beneficial, had time allowed, to identify the test re-test reliability of the questionnaire (all items 1-35).

With regards to Phase 2, there is always the risk that any personal biases, which may exist, impact upon the interpretation and analysis of the participants' responses within the interviews. Through my philosophical approach to the research, and my consideration of the wider literature, I tried to ensure that any such biases were restricted, however, I acknowledge that this is not always possible. Furthermore, within Phase 2 I recognise that many of the participants' responses included statements. While I did manage to explore many of these statements during the interviews, I recognise that there were others which I could have elaborated on further to identify the participants' beliefs and views. E.g. Participant 3b mentioned (when referring to the use of headsets) *"It is still better than typing on a keyboard";* understanding why would have yielded more meaningful information.

Overall, I would argue that while my methods are imperfect, they are valuable, and the combination of Phase 1 and Phase 2 have provided insight to the experiences of video gaming within a population of young people.

10.4 Avenues for Future Research

I believe that conducting similar research on a larger scale and comparing frequencies around time spent video gaming by young people over a two-year period would provide useful information regarding the growth and popularity of

video gaming. I also believe that interviewing parents, and professionals who work with young people, around their perceived impact and understanding of video gaming would provide additional information relating to the impact of video gaming, and any gaps of knowledge different groups of adults may have (which could be addressed). Furthermore, I feel the Video Gaming Preoccupation Questionnaire (or a revised version) could be used with young people to help them understand how their own use of video gaming can impact upon their lives, so they can reflect upon any potential negative impacts. Working with young people to help them reflect upon how video gaming is (potentially) detrimental to their learning, their interactions with their family and their engagement with other activities could promote healthy attitudes towards video gaming.

Chapter 11: Conclusion

Before I conclude this thesis, it is necessary to discuss how I am positioned in relation to this study and the participants, as the researcher. Video gaming is something I am interested to learn more about due to my numerous experiences of working with, and knowing, young people who spend great lengths of time video gaming, including several members of my family. While video gaming is not necessarily an activity I have much time engage with, I am able to respect and appreciate the technologies involved and its appeal to young people and adults alike; video gaming is not an activity I am seeking to praise or criticise, but a topic which I am intrigued by. With reference to my position to the participants in the study, it is important to acknowledge that I have worked with some of the participants who completed Phase 1 of this research. However, I do not believe any of our interactions would impact their responses to the questionnaires as video gaming was never a reason for my involvement with those young people. Furthermore, none of the participants chosen for the interviews within Phase 2 were known to me, and so I would describe myself as being independent to those participants. Overall, I would argue that I am mostly independent to this research project, however, I recognise that I may lack the understanding of what it feels like to spend large amounts of time video gaming (and the associated experiences) and the direct impact this can have on a person. I understand that this lack of experience may have impacted upon my ability to analyse the data, although to some extent it ensures that I remain mostly impartial in my approach.

Overall, I believe there are three overarching conclusions which can be drawn from this research. Firstly, I feel this research has emphasised the importance of video gaming for promoting social connectedness within young people. Whether young people are using video games as a medium to speak with others, play with others, or to compete with others, many of the participants seemed to be motivated by the social aspect of video gaming. Even when

participants weren't necessarily talking to other young people through video gaming, they described a sense of connection from playing video games. Participants referenced social influence, and the importance of having up to date knowledge of video games, so they can experience social inclusion through conversations in school. Furthermore, I would argue that video gaming also provides an accessible way of contacting others (for young people), particularly when meeting face to face is challenging/ not possible.

Secondly, I would argue this research contributes towards our understanding of the extent to some of the risks of video gaming, including the extent to which young people experience problematic behaviours/preoccupied thoughts with regards to video gaming. Around 16% of the participants within this study could be described as experiencing video gaming preoccupation, while male and primary school aged participants appear to be the most vulnerable groups (to video gaming preoccupation). Additionally, the majority of the participants in this research were accessing video games intended for older adolescents and adults, despite evidence which highlights the dangers of exposing children to mature content (Bijvank, Konijn, Bushman & Roelofsma, 2009). Through exploring young people's perceptions this research has provided insight regarding the impact of video gaming upon young people's sleeping patterns, their learning and their mood. However, I feel it is important to note that many young people identified positive impacts with regards to video gaming in terms of their wellbeing/development.

Finally, I believe this research has demonstrated that video gaming means many different things to different young people, and the impact varies massively depending on how video games are used. Young people play video games for a variety of reasons and Phase 2 has conveyed the importance of video gaming to some young people's lives (such as self-efficacy, escapism, and the experience of flow). I believe this research implies the need to consider the specific nature of how video games are used by CYP and what they are gaining from video gaming, before assumptions are made about any detrimental implications. This research will certainly influence my own practice in terms of how I gather information concerning young people's video gaming habits (where relevant). This research has helped me to recognise the importance of

understanding what CYP play, how they play, who they play with and asking the CYP themselves, why they play? The responses from Phase 2 of this research have been invaluable to furthering my insight as to why CYP engage with video gaming and the perceived benefits of video gaming.

Chapter 12: Glossary of Items

AI (artificial intelligence)	Within the context of video gaming, AI refers to computer based/controlled characters (rather than those manipulated by human players).
Battle Royale	A battle royale game is a video game genre that blends the survival, exploration and scavenging elements of a survival game with last-man-standing gameplay. Battle royale games challenge many players, starting with minimal equipment, to search for weapons and armour and eliminate all other opponents while avoiding being trapped outside of a shrinking safe area, with the winner being the last competitor in the game. Nearly all battle royale games are played online.
CYP	Children and young people. Sometimes used in the context of 'child or young person'.
MMO	This term concerns 'massively multiplayer online' video games. Video games with large numbers of players, typically from hundreds to thousands, on the same server. MMOs usually feature a huge, persistent open world.
Nintendo Wii	A games console produced by the company Nintendo that can connect to the internet for social gaming/networking/browsing.
PlayStation 3/4	A games console produced by the company Sony that can connect to the internet for social gaming/networking/browsing.
Professional Video Gamer (sometimes referred to as 'Pro Gamer')	A pro gamer is full time competitive player who is paid to play games. Most pro gamers are normally paid by their teams or sponsors to play and compete in gaming tournaments around the world.

	Many tournaments offer monetary rewards for winners and can make up a big part of a player's earnings.
Split-screen (or local co-op) video gaming	Some video games feature split-screen capability. It allows the display device to split into (typically) two or four portions, allowing players to use the same screen to play competitively, or co-operatively.
Turtle beach	Turtle beach is a corporation known for producing video gaming accessories. The company produces video gaming headsets and the term 'Turtle Beach' is sometimes used a noun by CYP to refer to their product (headset).
Twitch	A platform for watching and sharing live video content. Video gamers can stream their live gameplay via twitch.
Video gamer	Someone who plays video games.
Video gaming	The activity of playing video games.
Video game engine	A video game engine is a software-development environment designed for people to build video games. Developers use video game engines to construct video games for consoles, mobile devices, and personal computers. The core functionality typically provided by a video game engine includes a rendering engine ("renderer") for 2D or 3D graphics, a physics engine or collision detection (and collision response), sound, scripting, animation, artificial intelligence, networking, streaming, memory management, threading, localization support, scene graph, and may include video support for cinematics.

WhatsApp	A cross-platform mobile messaging app which allows you to exchange messages over the internet/mobile data usage, without having to pay.
Xbox 360/One	A games console produced by the company Microsoft that can connect to the internet for social gaming/networking/browsing.
YouTube	A free video sharing website that makes it easy to watch online videos. You can create and upload your own videos to share with others and subscribe to their ‘channels’. Video gamers can stream their live gameplay via YouTube.

Chapter 13: References

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Chapter 14: Appendices

Appendices Order of Contents

Appendix	Content	Page
1	Information sheet and consent forms	218
2	Questionnaire	225
3	Questionnaire drafts and feedback from teachers	232
4	Scoring framework for Video Gaming Preoccupation Questionnaire	243
5	Interview schedule	245
6	Pilot unstructured interview transcripts	249
7	Example interview transcripts (one primary school aged participant and one secondary school aged participant)	254
8	Screenshot examples of thematic analysis (including themes and nodes)	261
9	Overall thematic map	270
10	Certificate of ethical approval	272

Appendix 1: Information sheets and consent forms

Information and consent letter for children/participants

Information about the Research Project:

Young people's use of video games: Motivations and perceived implications, with a focus on the social aspects of video gaming.

What am I researching?
My research project is looking at why children and young people play video games. You will be asked to complete a short questionnaire relating to: 1) why you play video games, 2) what video games you play 3) information relating to how you play and 4) how video gaming makes you feel/behave.

What happens after this?
After you have completed the questionnaire, I will be asking some of the children and young people to take part in a discussion (interview) with me. This discussion will involve more questions about the same or similar topics, such as your reasons for playing video games.

Why am I studying this topic?
I want to explore why children and young people play video games and whether they feel the social aspects (such as talking through a headset or playing with other players) of video games are beneficial (good) or detrimental (bad) to their wellbeing. I also want to find out how many young people play online video games and whether this impacts upon other activities.

Who is carrying out the research?
My name is Harry Morse and I am a trainee Educational Psychologist studying at the University of Exeter. Educational Psychologists support and work with children, their parents, families, and schools.

Permission from you and your parents/carers
I will be asking your parents/carers that they are happy for you to take part in this research project. I will do this by getting them to complete a consent form to indicate whether they are happy for you to be involved or not. I would also like to gain your permission to take part in this research.

What happens with my information and data?
I will write up this research as a part of a project I am doing whilst at university. I will be treating all information you give me as confidential (kept in secret) and your name will not be used in my research project; you will be anonymous. Your data will only be accessible to me as the researcher and stored on a password protected computer in a locked room.

If you, or any young person, shares information that is of significant concern, e.g. that you may have been or might be harmed, I will have to report this information to an appropriate person. I will make sure that I talk to you about this first.

What if I don't want to take part in the research project?

- You do not have to take part in this project and may withdraw from it at any time.
- If anything about this project causes you to be upset or distressed then please talk to your teacher, a member of staff you trust, or myself, and we will be able to help you.

Further details:
This project is being undertaken by Harry Morse (a trainee educational psychologist from the University of Exeter) as part of his training towards the doctorate in educational, community and child psychology.

For further information about the research, please contact:

Name: Harry Morse
Contact information for me is available from the school.

Consent
I have been fully informed about the aims and purposes of the project and I am happy to participate in this research.

I confirm that I have read and understood the information sheet for the above study and I understand that my participation is voluntary, and I can change my mind at any time, without giving reason.

OPT-IN CONSENT FORM FOR RESEARCH PARTICIPANTS

I am happy to participate in the above research.

.....……..
.....……
(Please write your first and last name here) **(Today's Date)**

…….……..…..
(Name of your class)

Please return this signed form to the class teacher.

Information and consent letter for parents/carers:

Young people's use of video games: Motivations and perceived implications, with a focus on the social aspects of video gaming.

Details of the project
This project is being undertaken by Harry Morse (a trainee educational psychologist from the University of Exeter) as part of his training towards the doctorate in educational, community and child psychology.

The first stage of this project will involve exploring children's use of video games, their motivation for playing, and how they feel video gaming impacts upon their thoughts/feelings/behaviour (using an adapted version of the Internet Addiction Test-Young, 1998). This will be completed in school through a questionnaire which will be administered by their class teacher.

The second stage will involve a selection of children (randomly chosen from those who have taken part in the first stage) taking part in individual face-to-face discussions with the researcher (*Harry Morse*) around their motivation for playing (or not playing) video games, the impact they feel video games has upon their lives/wellbeing and the social advantages/disadvantages of playing or not playing video games.

Contact Details
For further information about the research, please contact:

Name: Harry Morse
Postal address: DEdPsych, University of Exeter, St Luke's Campus, Heavitree Road, Exeter, EX12LU
Email: hsm207@exeter.ac.uk

If you have concerns/questions about the research you would like to discuss with someone else at the University, please contact:
Dr Andrew Richards, Programme Director for the Doctorate in Educational, Child and Community Psychology at Exeter University via: A.J.Richards@exeter.ac.uk

Confidentiality
Questionnaires, interview tapes and transcripts will be held in confidence and used for research purposes. They will not be used other than for the purposes described below and third parties will not be allowed access to them (except as may be required by the law). Your data will be held in accordance with the Data Protection Act.

Data Protection Notice
Data Protection Notice - The information your child provides will be used for research purposes and their personal data will be processed in accordance with current data protection legislation and the University's notification lodged at the Information Commissioner's Office. Your child's personal data will be treated in the strictest confidence and will not be disclosed to any unauthorised third parties. Your information will be stored securely and held for a maximum of 10 years before being destroyed. The results of the research will be published in anonymised form and available through the University of Exeter Library Service. The results may be used for publication in academic journals, conference presentations and seminars/workshops.

Anonymity

All data in the research project will be treated as anonymous and confidential, unless a child protection issue arises. It will be accessible only to the researcher and stored on a password protected computer and/or in a locked room. Names on the questionnaire will only be used to match the data collected from all questionnaires. Your child will be kept anonymous within the research project and their name will not be mentioned.

I have been fully informed about the aims and purposes of the project. I understand that:

- all information about my child gives will be treated as confidential, unless a child protection issue arises;
- any reporting of data and results will be anonymous (e.g. in the final thesis);
- there is no requirement for my child to participate in this research project and, if s/he does choose to participate, s/he may withdraw their participation at any stage and may request for their data to be destroyed;
- any information which my child gives will be used solely for the purposes of this research project.

NOTE: If you do not wish for your child to participate in both stages of the research you can sign to consent for your child's involvement in either stage 1 (questionnaire) or stage 2 (discussion). Only some of the children involved within stage 1 will be selected for discussions as part of stage 2.

1) I am happy for my child to participate and complete the questionnaire as part of this research

.....……..
.....……..
(Signature of parent / guardian) (Date)

…….……..…..
…….
(Printed name of parent / guardian) (Printed name of participant / your child)

2) I am happy for my child to be spoken to and asked questions in face to face discussions with the researcher as part of this research

.....……..
(Signature of parent / guardian)

Please return this signed form to the class teacher or to the school office if you are happy for your child to participate in this research project.

Information for schools and attached consent form:

Young people's use of video games: Motivations and perceived implications, with a focus on the social aspects of video gaming.

Details of the project

This project is being undertaken by Harry Morse (a trainee educational psychologist from the University of Exeter) as part of his training towards the doctorate in educational, community and child psychology.
The first stage of this project will involve exploring children's use of video games, their motivation for playing, and whether they feel video gaming impacts upon their mood/behaviour/emotions. This will be completed in school through a questionnaire which will be administered by their class teacher.

The second stage will involve a selection of children taking part in individual face-to-face discussions with the researcher (*Harry Morse*) around their motivation for playing (or not playing) video games, the impact they feel video games has upon their lives/wellbeing and the social advantages/disadvantages of playing or not playing video games.

Confidentiality and Anonymity

Questionnaires, interview tapes and transcripts will be held in confidence and used for research purposes. They will not be used other than for the purposes described and third parties will not be allowed access to them (except as may be required by the law). Your data will be held in accordance with the Data Protection Act. All data in the research project will be treated as anonymous and confidential, unless a child protection issue arises. It will be accessible only to the researcher and stored on a password protected computer and/or in a locked room. Names on the questionnaire will only be used to match the data collected from all questionnaires. Each child and teacher will be kept anonymous within the research project and their name will not be mentioned.

Data Protection Notice

Data Protection Notice - The information each child provides will be used for research purposes and their personal data will be processed in accordance with current data protection legislation and the University's notification lodged at the Information Commissioner's Office. Your child's personal data will be treated in the strictest confidence and will not be disclosed to any unauthorised third parties. Your information will be stored securely and held for a maximum of 10 years before being destroyed. The results of the research will be published in anonymised form and available through the University of Exeter Library Service. The results may be used for publication in academic journals, conference presentations and seminars/workshops.

Schools will receive

Schools will receive copies of the questionnaire to provide to the students from the researcher, Harry Morse. The researcher will supply a template letter to be distributed

to parents/guardians. This letter will contain information about phase one and phase two of the study along with a consent form to be signed by both the parent/carer and their child.

Contact Details

For further information about the research, please contact:

Name: Harry Morse

Postal address: DEdPsych, University of Exeter, St Luke's Campus, Heavitree Road, Exeter, EX12LU

Email: hsm207@exeter.ac.uk

If you have concerns/questions about the research you would like to discuss with someone else at the University, please contact:

Dr Andrew Richards, Programme Director for the Doctorate in Educational, Child and Community Psychology at Exeter University via: A.J.Richards@exeter.ac.uk

Consent

I have read about the study and understand the basis for our involvement as a school and consent to take part. I understand that I can withdraw from this study at any time:

For head teacher or member of senior leadership team to sign:

Name:……

Signature:……

Date:……

For teacher of the year 4 class to sign:

Name:……

Signature:……

Date:……

For teacher of the year 5 class to sign:

Name:……

Signature:……

Date:…….

Appendix 2: Questionnaire

Prevalence and Motivation of Video Game Usage Questionnaire

This questionnaire is about your views on why (or reasons) and how you play video games. Another word for these reasons is your 'motivation' for playing video games. The questionnaire also includes some questions around how video gaming makes you feel, think and behave.

There are no right or wrong answers, only what you believe and feel. You can leave out any questions which you don't want to answer.

We will not know who you are. The answers you give won't be shared with anyone. In other words, it will be confidential. Nobody except yourself will know your answers; in other words, it will be anonymous. You only have to fill in this questionnaire if you want to. If you would not like to fill it in, just tell your teacher and they will give you something else to do.

For each question, please **circle** the option (or options for questions where you can select more than one answer) that is true for you.

If you have any questions about the questionnaire or if you do not want to complete the questionnaire, please talk to your teacher.

Name: _____

Name of School: _____

School Year: _____

Age (years): _____

Gender: Male / Female

Date today: _____

How often do you play video games?	Never	At least once a month	At least once a week	Once a day	More than once a day
Do you judge other children negatively (does it seem 'un-cool') if they can't, or choose not to, play video games?	Definitely not	I don't think so	Not sure	I think so	Definitely
Do you think someone who does not play video games is missing out?	Definitely not	I don't think so	Not sure	I think so	Definitely
How long do you usually play video games for at a time (during one sitting)?	Half an hour or less	Between half an hour to an hour	Between an hour to three hours	Between three to six hours	Over six hours
How often do you play online video games? (Online video gaming means video games which are played over	Never	At least once a month	At least once a week	Once a day	More than once a day

the internet, usually with or against other players).					
How long do you usually play <u>online</u> video games for at a time (during one sitting)?	Half an hour or less	Between half an hour to an hour	Between an hour to three hours	Between three to six hours	Over six hours
What is the PEGI rating (age rating) of the game(s) you play the most?	**3**	**7**	**12**	**16**	**18**
How important is video gaming for allowing you to speak with your friends?	Not important at all	Not very important	Somewhat important	Important	Very important
Do you feel that playing video games has a good or bad effect upon how people behave?	It has a very bad impact	It has a bad impact	There is no real impact	It has a good impact	It has a very good impact

What are your main reasons for playing video games? (<u>please select all</u> relevant responses).	For fun	To speak with friends or family	Because of the competition	Because it makes me feel happy	Because I get bored	Because it challenges me	Other reasons (please write):

What types/genre of video games do you tend to play? (<u>Please select all</u> types that you play).	Action/ adventure	Shooters	Racing	Massively Multiplayer	Role Play	Strategy	Sports	Battle Royale	Other (please write):
What device(s) do you use to play video games? (<u>Please select all</u> devices that you use).	PlayStation 3 or 4	Xbox 360 or One	Computer/ Laptop	Nintendo Switch/Wii U	Handheld Console (such as PS Vita, Nintendo DS etc.)	Tablet	Smartphone	Other (please write):	

What video games do you prefer to play?	Online multiplayer video games	Single- player video games	Split screen video games

What types of <u>online</u> video games do you prefer to play?	Co-operative video games (working together)	Competitive video games (competing/playing against each other)

What are the most important things to think about when buying a video game? (Please select all relevant answers to you).	Whether the video game can be played online or not	How much the game costs	How good the campaign/missions are	How much content the video game has	Whether my friends have the game	Whether the game is part of a recurring series (such as FIFA)

How often do you find that you've spent longer playing video games than you thought you were going to?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often does playing video games get in the way of jobs your parents have asked you to do?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often do you prefer talking to others through online video gaming to talking to others in person?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often do you form new friendships with people through online video games?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often do your family or friends complain	Rarely or never	Every once in a while	Sometimes	Often	Always

about how much time you spend playing video games?					
How often do you feel your school work is worse because of the amount of time you spend playing video games?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often do you play video games before doing something else that you need to do?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often does the amount of work you complete suffer because of video gaming?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often do you become annoyed or secretive when someone asks about how much time you spend playing video games?	Rarely or never	Every once in a while	Sometimes	Often	Always
If you are feeling upset about something, how often do you think about playing video games to make you feel better?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often do you find yourself thinking about when you will next be able to play video games again?	Rarely or never	Every once in a while	Sometimes	Often	Always

How often do you feel that life without video games would be boring, empty and joyless?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often do you snap, shout, or become annoyed if someone bothers you while you are playing video games?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often do you not get enough sleep because of playing video games?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often do you find yourself thinking about playing video games when at school?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often do you find yourself saying "Just a few more minutes" when playing video games?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often do you try to cut down the amount of time you spend playing video games and fail?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often do you try to hide how long you've been	Rarely or never	Every once in a while	Sometimes	Often	Always

playing video games?					
How often do you choose to spend more time playing video games instead of going out with others?	Rarely or never	Every once in a while	Sometimes	Often	Always
How often do you feel sad, moody or nervous when you are not playing video games, which goes away once you start playing again?	Rarely or never	Every once in a while	Sometimes	Often	Always

THANK YOU FOR COMPLETING THE QUESTIONNAIRE

Appendix 3: Questionnaire (first 14 items) drafts and feedback from teachers

First draft

Prevalence and Motivation of Video Game Usage Questionnaire

This questionnaire is about your views about your motivation for playing video games and how you use online video games.

There are no right or wrong answers, only what you believe and feel. You can leave out any questions you don't want to answer.

We will not know who you are. The answers you give won't be shared with anyone. In other words, it will be confidential. Nobody except yourself will know your answers; in other words, it will be anonymous. You only have to fill in this questionnaire if you want to. If you would not like to fill it in, just tell your teacher and they will give you something else to do.

For each question, please tick the box or circle the number of the option that best corresponds to your personal situation or position.

If you have any questions about the questionnaire, talk to your teacher.

Name: _____

Name of School: _____

School Year: _____

Age (years): _____

Gender: Male / Female

Date today: _____

How often do you play video games?	Never	Once a month	Once a week	Once a day	More than once a day
Is there a negative social stigma associated with not owning a video games console?	Definitely not	I don't think so	Not sure	I think so	Definitely
Do you think someone who does not play video games is missing out?	Definitely not	I don't think so	Not sure	I think so	Definitely
How long do you usually play video games for at a time (during one sitting)?	Less than half an hour	Around an hour	Up to three hours	Up to six hours	Over six hours
How often do you play online video games?	Never	Once a month	Once a week	Once a day	More than once a day
How long do you usually play online video games for at a time?	Less than half an hour	Around an hour	Up to three hours	Up to six hours	Over six hours

What are the PEGI ratings (age ratings) of the games you usually play? (Please select all responses that are relevant to you)	3	7	12	16	18
How important is video gaming for allowing you to speak with your friends?	Not important at all	Not very important	Somewhat important	Important	Very important
Do you feel that playing video games has a good or bad effect upon how people interact with each other?	It has a very bad impact	It has a bad impact	There is no real impact	It has a good impact	It has a very good impact

What are your main reasons for playing video games? (please select all relevant responses)	For fun	To speak with friends	Because of the competition	Because it makes me happy	Because I get bored	Because it challenges me	Other reasons (please write):

What types/genre of video games do you tend to play? (Please select all responses that are relevant to you)	Action/ adventure	Shooters	Racing	Massively Multiplayer	Role Play	Strategy	Sports	Other (please write):
What device(s) do you use to play video games? (Please select all responses that are relevant to you)	PlayStation 3 or 4	Xbox 360 or One	Computer / Laptop	Nintendo Switch/Wii U	Handheld Console (such as PS Vita, Nintendo DS etc.)	Tablet	Phone	Other (please write):

What video games do you prefer to play?	Online multiplayer video games	Single- player video games	Split screen video games

What types of <u>online</u> video games do you prefer to play?	Co-operative video games (working together)	Competitive video games (competing/playing against each other)

What are the most important aspects to consider when purchasing a video game? (please select all relevant answers to you)	Whether the video game can be played online or not	How much the game costs	How good the campaign/missions are	How much content the game has	Whether my friends have the game	Whether the game is part of a recurring series (such as call of duty or FIFA)

Written feedback from teacher: CB

Prevalence and Motivation of Video Game Usage Questionnaire

This questionnaire is about your views about your motivation for playing video games and how you use online video games.

'Motivation' might be tricky for a lot of them to comprehend. Obviously, it's an important word in your writing at this level, but you could change it to 'reasons' or even simply 'why' (with a little editing) for the sake of the questionnaire. Just a thought. Or in child terms explain motivation very clearly if you need to retain the word.

E.g. *This questionnaire is about your views on **why (OR) the reasons** you play video games and what you use online video games for. Another word for these reasons is your 'motivation' for playing video games.*

There are no right or wrong answers, only what you believe and feel. You can leave out any questions which you don't want to answer.

We will not know who you are. The answers you give won't be shared with anyone. In other words, it will be confidential. Nobody except yourself will know your answers; in other words, it will be anonymous. You only have to fill in this questionnaire if you want to. If you would not like to fill it in, just tell your teacher and they will give you something else to do.

For each question, please tick the box or circle the number of the option that best corresponds to your personal situation or position.

If you have any questions about the questionnaire, talk to your teacher.

Name: _____

Name of School: _____

School Year: _____

Age (years): _____

Gender: Male / Female

Date today: _____

How often do you play video games?	Never	Once a month	Once a week	Once a day	More than once a day

Is there a negative social stigma associated with not owning a video games console? Does it seem 'uncool' to not own a games console?	Definitely not	I don't think so	Not sure	I think so	Definitely
Do you think someone who does not play video games is missing out?	Definitely not	I don't think so	Not sure	I think so	Definitely
How long do you usually play video games for at a time (~~during one sitting~~)?	Less than half an hour	Around an hour	Up to three hours	Up to six hours	Over six hours
How often do you play online video games? EXPLAIN 'ONLINE'	Never	Once a month	Once a week	Once a day	More than once a day
How long do you usually play online video games for at a time?	Less than half an hour	Around an hour	Up to three hours	Up to six hours	Over six hours
What are the PEGI ratings (age ratings) of the games you usually play? (Please select all responses that are relevant to you) "…ages that you have played"	**3**	**7**	**12**	**16**	**18**
How important is video gaming for allowing you to speak with your friends?	Not important at all	Not very important	Somewhat important	Important	Very important
Do you feel that playing video games has a good or bad effect upon how people interact with each other? Explain interact or change word simply to 'act' or 'treat', maybe	It has a very bad impact	It has a bad impact	There is no real impact	It has a good impact	It has a very good impact

What are your main reasons for playing video games? (please select all relevant responses)	For fun	To speak with friends	Because of the competition	Because it makes me happy	Because I get bored	Because it challenges me	Other reasons (please write):

What types/genre of video games do you tend to play? (Please select all responses that are relevant to you) "…types	Action/ adventure	Shooters	Racing	Massively Multiplayer	Role Play	Strategy	Sports	Other (please write):

that you play"								
What device(s) do you use to play video games? (Please select all responses that are relevant to you) "…devices that you use"	PlayStation 3 or 4	Xbox 360 or One	Computer / Laptop	Nintendo Switch/Wi i U	Handheld Console (such as PS Vita, Nintendo DS etc.)	Tablet	Phone	Other (please write):

What video games do you prefer to play?	Online multiplayer video games	Single- player video games	Split screen video games

What types of <u>online</u> video games do you prefer to play?	Co-operative video games (working together)	Competitive video games (competing/playing against each other)

What are the most important aspects (things) **to consider** (think about) **when purchasing** (buying) **a video game? (please select all relevant answers to you)**	Whether the video game can be played online or not	How much the game costs	How good the campaign/missions are	How much content the game has	Whether my friends have the game	Whether the game is part of a recurring series (such as call of duty or FIFA)

Written feedback from teacher: PA

Prevalence and Motivation of Video Game Usage Questionnaire

This questionnaire is why you play video games, or your reasons for playing.

There are no right or wrong answers, only what you believe and feel. You can leave out any questions which you don't want to answer.

We will not know who you are. The answers you give won't be shared with anyone. In other words, it will be confidential. Nobody except yourself will know your answers; in other words, it will be anonymous. You only have to fill in this questionnaire if you want to. If you would not like to fill it in, just tell your teacher and they will give you something else to do.

For each question, please tick the box (I don't think there are any tick boxes? Remove this part as it seems redundant?) or circle the number of the option that best corresponds to your personal situation or position.

If you have any questions about the questionnaire, talk to your teacher.

Name: _____

Name of School: _____

School Year: _____

Age (years): _____

Gender: Male / Female

Date today: _____

How often do you play video games? What if someone plays twice a month or twice a week? It may be worth considering how you can rephrase this.	Never	Once a month	Once a week	Once a day	More than once a day
Is there a negative social stigma associated with not owning a video games console? Does it seem 'uncool' to not own a games console? Consider- "Do you judge other children negatively who can't, or choose not to, play video games? I think Key Stage 2 children will understand negative but 'social stigma' is a little too complex.	Definitely not	I don't think so	Not sure	I think so	Definitely
Do you think someone who does not play video games is missing out?	Definitely not	I don't think so	Not sure	I think so	Definitely

How long do you usually play video games for at a time (~~during one sitting~~)? Consider alternative responses as someone may play between half an hour to an hour	Less than half an hour	Around an hour	Up to three hours	Up to six hours	Over six hours
How often do you play online video games? (Online video gaming means video games which are played over the internet, usually with or against other players).	Never	Once a month	Once a week	Once a day	More than once a day
How long do you usually play online video games for at a time? Same regarding responses- consider rephrasing.	Less than half an hour	Around an hour	Up to three hours	Up to six hours	Over six hours
What are the PEGI ratings (age ratings) of the games you usually play? Maybe just ask which PEGI rating they tend to play the most? This will provide additional clarity.	**3**	**7**	**12**	**16**	**18**
How important is video gaming for allowing you to speak with your friends?	Not important at all	Not very important	Somewhat important	Important	Very important
Do you feel that playing video games has a good or bad effect upon how people interact with each other? Rephrase interact to how people behave?	It has a very bad impact	It has a bad impact	There is no real impact	It has a good impact	It has a very good impact

What are your main reasons for playing video games? (please select all relevant responses)	For fun	To speak with friends	Because of the competition	Because it makes me happy	Because I get bored	Because it challenges me	Other reasons (please write):

What types/genre of video games do you tend to play? (Please select all responses that are relevant to you). I think some children	Action/ adventure	Shooters	Racing	Massively Multiplayer	Role Play	Strategy	Sports	Other (please write):

may be confused about Massively Multiplayer - I assume this is referring to Battle Royale video games? Maybe include this as an additional response.								
What device(s) do you use to play video games? (Please select all responses that are relevant to you). Maybe specify phone as 'Smartphone'	PlayStation 3 or 4	Xbox 360 or One	Computer/ Laptop	Nintendo Switch/Wii U	Handheld Console (such as PS Vita, Nintendo DS etc.)	Tablet	Phone	Other (please write):

What video games do you prefer to play?	Online multiplayer video games	Single- player video games	Split screen video games

What types of <u>online</u> video games do you prefer to play?	Co-operative video games (working together)	Competitive video games (competing/playing against each other)

What are the most important things to think about when buying a video game? (<u>Please select all</u> relevant	Whether the video game can be played online or not	How much the game costs	How good the campaign/missions are	How much content the (video?) game has	Whether my friends have the game	Whether the game is part of a recurring series (such as call of duty or FIFA)

answers to you).						

Appendix 4: Scoring framework for Video Gaming Preoccupation Questionnaire

The following rule applies to responses for questions 16-35:

1: ‘Never or Rarely’ 2: ‘Every once in a while’ 3: ‘Sometimes’ =4: ‘Often’ 5: ‘Always’

Total up the scores for questions 16-35. The higher the score, the higher the level that video gaming occupies the mind of the participant as described below. Average, upper and lower ranges determined through identifying mean score, and by whether scores fell above or below one standard deviation of the mean.

Appendix 5: Interview Schedule

Interview with:
School:
Year:
Gender:

Motivation(s) for video gaming			
	Do you play video games?		
		If yes: How do you play?	
	What sort of video games do you like to play?		
		Why do you play **those** particular video games?	
	Why do you play video games, generally? (What is your motivation?)		
		Tell me more, are there any other reasons as to why you play video games?	
Reflections on use (or others use) of video games			
	If no to question "Do you play video games?"- Do you ever feel you're missing out from not playing?		
		How/why?	
		Do others talk about video gaming in school?	
			How often?
			How does this make you feel?
	If no to question "Do you play video games?"- Do you wish you were able to play video games?		

		Do you wish you had access to a video gaming device (such as a PlayStation or Xbox)?	
	If yes to question "Do you play video games?"- Do you think you'd be missing out if you didn't play video games?		
		Why is that?	
		Do others talk about video gaming in school?	
			How often?
			How does this make you feel?
	If yes to question "Do you play video games?"- If you didn't play video games what would you do instead (i.e. if your video games console broke)?		
		Do you think you'd do something (an activity) indoors or outdoors?	
	Do you think playing video games impacts upon your learning or other's learning?		
		How about homework or reading?	
	Have you ever not finished or handed in your homework because of spending too much time playing video games?		
		Are you aware of other people failing to do homework for the same reason?	

	Do you find it difficult to stop playing video games once you have started?		
		Tell me more about that?	
			Why is it challenging/difficult?
Wider Impact of video gaming			
	Do you think playing video games has an impact or effect on your life?		
		Do you think video gaming impacts upon children's lives, generally	
	On a scale of 0-10 (0 being bad and 10 being good) where do video games fall in terms of their impact?		
		Why is that?	
	Do you think there are any advantages of playing video games that you haven't mentioned so far?		
	Do you think there are any negatives or disadvantages of playing video games that you haven't mentioned so far?		
	Is there anything else you'd like to talk about regarding video gaming?		

Appendix 6: Pilot unstructured interview transcripts (one participant of primary school age, and one participant of secondary school age)

Pilot unstructured Interview: Primary (male, aged 9)

Researcher: Tell me what you know about video games?

Pilot interviewee A: *Erm you play them. They are a way of having fun. Something to do if you are bored or don't know what to do.*

Researcher: What do you think about video games?

Pilot interviewee A: *Not sure. They are just fun to play. I think sometimes they can be bad if you play too long because they will hurt your eyes. You shouldn't look at screens for too long.*

Researcher: Do you think video games have an impact upon people? Such as good or bad impacts?

Pilot interviewee A: *Hmm. I think they can make people unhealthy as they sit inside, and they don't go outside enough. It's better to play sports and do stuff like that as you are exercising. If we all played video games a lot, we might get fat.*

Researcher: What do you use video gaming for?

Pilot interviewee A: *A way of having fun. It's good. I like playing lots of different games. Sometimes games are more interesting than doing other stuff in real life. You cant do stuff in real life that you can do in video games.*

Researcher: Do you find that many people use video games?

Pilot interviewee A: *I think all the people in my class play video games. I mean, I'm not completely sure but all my mates play them. Girls and boys like video games*.

Researcher: How would you feel if you couldn't play video games?

Pilot interviewee A: *Bad. I don't play loads like some people, but I'd be annoyed if my Mum stopped me from playing my Xbox. I've got a Wii U too actually, although I don't play that much anymore.*

Researcher: Why would you be annoyed?

Pilot interviewee A: *I'd be bored. I'd feel left out if everyone else could still play. Everyone else would be playing and I wouldn't be able too. I might not know what people are talking about when they talk about video games in school.*

Researcher: Does that happen often? People talking about video gaming in school?

Pilot Interviewee A: *Yeah loads. Mainly Fortnite though.*

Researcher: Do you think video games allow people to connect to each other?

Pilot interviewee A: *For me they are. I can speak to my friends every night if we play together.*

Researcher: How often do you play together?

Pilot interviewee A: *Most nights after school. Not all the time because not everyone is always free. I'll probably play Fortnite tonight. We usually do squads.*

Researcher: Tell me about squads?

Pilot interviewee A: *Its when you play Fortnite as a group. You have four people in the same team. You have to work together to win. I'm getting used to it still as I'm used to playing solos, but James, in my class, is amazing so we actually win a lot.*

Pilot unstructured Interview: Secondary (male, aged 14)

Researcher: Tell me what you know about video games?

Pilot interviewee B: *I know lots, I think. I've been playing them for years. I've got an Xbox and a PS4; I probably use the PS4 the most as that's what most people use. But yeah, erm, they are fun. Video games are for winding down, having fun and playing to win.*

Researcher: Tell me what you mean when you say "that's what most people use?", and "playing to win".

Pilot interviewee B: *Oh, erm. Like everyone I know uses a PS4 rather than an Xbox, everyone's on that at the moment. We used to play PUBG (a battle royale type video game) but now it's pretty much just Fortnite. And I try to play competitively, there's a lot of money at stake if you win a competition.*

Researcher: Why do you play video games?

Pilot interviewee B: *Mainly just for a laugh to be honest. It's something to do if the weathers not great and you can't go out. Good chance to catch up with people. Mainly for fun though. I enjoy playing. I feel like it gives me a buzz.*

Researcher: What do you mean by "buzz"?

Pilot interviewee B: *It's difficult to explain. I suppose it makes me happy (laughs).*

Researcher: Do you think video games have an impact on people?

Pilot interviewee B: *What like whether they are good or bad for people?*

Researcher: Yes, what are your thoughts on that?

Pilot interviewee B: *I don't really think there is an impact. It just depends on the person because for some people it could be a really bad activity; they may spend too much time playing, and I know people who do, they could get addicted and it's probably not great for physical health. But then I don't think these things are issues for most people. It's good for me as it gives me something to do and enjoy.*

Researcher: Do you think video games impact your learning at all?

Pilot interviewee B: *Not so far. I haven't done any exams or anything yet though. Maybe when I do my GCSEs I'll have to be careful I'm not playing too much as that could lead to issues but I don't think it's bad for my learning. I get my homework and that all done.*

Researcher: Do you ever play video games just so you can speak with others, or interact with others?

Pilot interviewee B: *What like real people?*

Researcher: Yes.

Pilot interviewee B: *I don't know to be honest. I never go on so I can play with strangers. I think sometimes I go on so I can tell a friend something funny which happened. It can be a good chance to catch up. I think the main reason I play is to have fun though. To get that buzz from playing and beating others online.*

Researcher: Do you think you prefer to play online video games compared with singleplayer of offline video games?

Pilot interviewee B: *Definitely. I play some single player games but not really that often, and only if I know they have a great campaign or story. Like RDR2 (Red Dead Redemption 2). But even with that (RDR2), once I've finished the campaign, I will be playing it online. I think online is generally more fun because you can compete with other real people.*

Researcher: Is it more fun playing against real people?

Pilot interviewee B: *Yeah, bots are too easy. I don't know, I think its good to prove how good you are by playing against other people. It becomes like a sport.*

Researcher: What would you say is more important (within video gaming) competition or using video games to socialise?

Pilot interviewee B: *I think it depends on the person. For me, it's competing, but for others who take it less seriously, I know that they just go on to mess around and talk to friends.*

Appendix 7: Example interview transcripts (one participant of primary school age, and one participant of secondary school age)

Interview with: 6d
School: 6
Year: 4
Gender: Female.

1) **Motivation to play video games:**

Researcher HM: *Do you play video games?*

6d*: Yes.*

Researcher HM: *What sort of video games do you like to play, and why do you play* ***those*** *particular video games?*

6d: *I play Fortnite and FIFA 19- on my PlayStation. I play them because everyone else plays them. They're the most popular video games.*

Researcher HM: *Why do you play video games generally, what is your motivation?*

6d: *To be entertained and to have fun. If there's an update I will want to play straight away.*

Researcher HM: *What do you mean by update?*

6d: *Well when games are updated new stuff comes out for them. And so everyone will then be playing that game everywhere. You don't want to miss out!*

2) **Reflection on use (or non-use) of video games:**

Researcher HM: *Do you think you'd be missing out if you didn't play video games?*

6d: *One thousand percent. It would be so boring.*

Researcher HM: *If you didn't play video games what would you do instead?*

6d: *Not sure. Probably like playing in my back garden with my dog- playing football.*

Researcher HM: *Do you think playing video games impacts upon your learning, such as your homework or reading at home? Or do you think it impacts upon children's learning generally?*

6d: *Yeah- because I think so much about games it's hard to focus about homework and other things. It also impacts on my football- if I stay up late playing video games then I get tired and can't play as well*

Researcher HM*: Does that happen a lot? You get too tired so you can't play football as well as you'd like to?*

6d: *I reckon most weeks.*

Researcher HM: *Have you ever not finished or handed in your homework because of spending too much time playing video games, or are you aware of other people failing to do homework for the same reason?*

6d: *Yeah- I never do my homework anyway though really.*

Researcher HM: *Do you think video games have a direct impact on how much work you get done?*

6d: *No actually, I just think I would never do it.*

Researcher HM: *Do you find it difficult to stop playing video games once you have started?*

6d: *Sometimes I do, if my mum asks me to finish. Sometimes I say I need to finish this game of Fortnite. It's stupid to not finish off a game really.*

3) Social aspect of video gaming:

Researcher HM: *Do you ever play online video games- that let you connect and play with other players?*

6d: *Yeah, I play FIFA and Fortnite online with my friends most nights. I play a lot to be honest.*

Researcher HM: *Do you think online video games are a good way of speaking to your friends or other people?*

6d: *Sort of, I think it's better to talk face to face because if you go on you can get addicted and you'd only talk about games- rather than about more general things.*

Researcher HM*: What do you mean by 'go on your own'?*

6d: *Well you should just make sure you see your friends in person instead of always talking through video games. We do talk about Fortnite a lot in school.*

Researcher HM: *Do you ever play video games just so you can talk to friends or other people?*

6d: *No. Some people in my class do though.*

Researcher HM: *Why do you play online video games?*

6d: *Because they are better, I'd rather play with friends than offline. Its more rewarding!*

Researcher HM*: How is it more rewarding?*

6d*: Because you can show other people how good you are. I also think playing games is just more fun when you play with your mates.*

Researcher HM: *Do you prefer online video games?*

6d: *Yes definitely.*

Researcher HM: *Do you think video games can affect how you interact with others? Does it change how you see or speak with your friends or other people generally, or do you think it impacts upon how other children interact with each other?*

6d: *Yeah- sometimes for me, if my friends aren't at school, we would go on our PlayStation. The same in the holidays too.*

Researcher HM*: When do you mean when you say, 'aren't at school'?*

6d*: Like in the evenings and that and on the weekends. Instead of seeing friends, well I suppose I see them at football, I speak to them when we play instead.*

4) Wider impact of video gaming:

Researcher HM: *Do you think playing video games has an impact or effect on your life or do you think video gaming impacts upon children's lives, generally?*

6d: *If you're good at it then there are Fortnite competitions and you can get loads of money for winning it- but you can get addicted and get carried away at the same time. I know people, kids, who spend too much time playing, I probably fit into that.*

Researcher HM*: What makes you think you play too much?*

6d: *Well it's all I do when I get out of school.*

Researcher HM*: Do you play to win money?*

6d*: Not yet as I'm not old enough, but I am definitely going to.*

Researcher HM: *On a scale of 0-10, 0 being bad and 10 being good, where do video games fall in terms of their impact?*

6d: *It's hard to say, maybe 5.*

Researcher HM: *Do you think there are any advantages of playing video games?*

6d: *Well, like Minecraft taught me loads of stuff about earth, about building and metals and that. They can be educational.*

Researcher HM: *Do you think there are any negatives or disadvantages of playing video games?*

6d: *It can make you addicted, you can play for a long time and your eyes start to hurt, you won't be able to focus on things.*

Researcher HM*: What do you mean by addicted?*

6d*: When you just can't stop playing even if you try.*

Researcher HM*: Do you feel like that?*

6d*: Maybe. Probably I'm not that bad, yet.*

Interview with: 7d
School: 3
Year: 9
Gender: Male

1) **Motivation to play video games:**

Researcher HM: *Do you play video games?*

7d*: Yeah, I play them.*

Researcher HM: *What sort of video games do you like to play, and why do you play* ***those*** *particular video games?*

7d: *Role playing games- such as Witcher 3, red dead redemption 2, fable, elder scrolls and dragon age. I love exploring open worlds and kind of having hundreds of missions I can do. I like games which have huge amounts of content for me to get immersed in.*

Researcher HM*: How do you play those video games, what device?*

7d*: PS4 and PC.*

Researcher HM: *Why do you play video games generally, what is your motivation?*

7d: *I like a story, it's engaging for me, interesting.*

2) **Reflection on use (or non-use) of video games:**

Researcher HM: *If you didn't play video games would you miss it?*

7d: *No, not really. I have other interests- I could easily find interest in playing instruments or building tech stuff. When I was a few years younger, I would have probably said yes, but I play less these days since I have started learning keyboard and the piano.*

Researcher HM: *Do you think playing video games impacts upon your learning, such as your homework or reading at home? Or do you think it impacts upon children's learning generally?*

7d: *Yes, I try and set myself goals of what I want to get done, but I can easily get distracted by video games or YouTube equally as much.*

Researcher HM: *Do you find it difficult to stop playing video games once you have started?*

7d: *Yes, I get lost in it, it's very difficult to stop playing. It's hard to explain, I just really enjoy those open world games and the interactions which take place. I probably prefer it to real world interactions as I'm a little bit socially awkward. Social interactions stress me out.*

3) **Social aspect of video gaming:**

Researcher HM: *Do you ever play online video games- that let you connect and play with other players?*

7d: *I dabble but I don't find much interest in it in all honesty. I suppose it's because I'm not very creative. It's not interesting enough for me- I need a goal, a good storyline. I can't make up my own fun as you're expected to do in online video games. I prefer to have a story to follow.*

Researcher HM: *Do you think online video games are a good way of speaking to your friends or other people?*

7d: *Yeah, it depends on the game though. For example, if you play cod (call of duty- a shooter) you can shout at friends and, equally, role play games can bring out the bad sides of people, not because it makes you violent, but because people get angry and competitive. And you can be rude to your friends, vice versa.*

Researcher HM: *Do you ever play video games just so you can talk to friends or other people?*

7d: *No. I know people do, like my younger brother does that; he plays on his Xbox just so he can speak with his mates from school. Not for me.*

Researcher HM: *Why do you play online video games?*

7d: *Mainly to see what the fuss is all about. I can play RDR2 online, but I need someone to play with. I think some people prefer them because it's a social need, and also because it's meets competitive needs- like when people play cod competitively, it's a way of proving your better than other people. Validation for some people. A sense of being better. Confirming to themselves that they are good at something. I don't see a problem with that.*

Researcher HM: *Would you say that you prefer online video games?*

7d: *No way. Like I said, I prefer games with predetermined missions.*

Researcher HM*: Do you think video games can affect how you interact with others? Does it change how you see or speak with your friends or other people generally, or do you think it impacts upon how other children interact with each other?*

7d*: Not really. I don't actively seek to spend time with people anyway, I find it exhausting. Generally, I think if people spend too much time playing then it can prevent them seeing people/friends in person. But at the same time, they might still be meeting friends or speaking to them through video gaming.*

4) Wider impact of video gaming:

Researcher HM: *Do you think playing video games has an impact or effect on your life or do you think video gaming impacts upon children's lives, generally?*

7d: *I think it's made me introverted which isn't particularly good, maybe its exemplified my traits. Games allow you to be yourself without feeling social pressures.*

Researcher HM: *How do you think it has contributed to you describing yourself as introverted?*

7d*: Because you can have fun experiences without the necessity of seeing other people. It provides you with an activity where there is no expectation to see or meet other people.*

Researcher HM: *On a scale of 0-10, 0 being bad and 10 being good, where do video games fall in terms of their impact?*

7d: *I couldn't say because it is subjective depending on the person and how people judge that. I would say an 8 because they've given me loads of joy, someone else may say a 3, or someone could even say the impact on my life is actually a 4 as it has contributed towards my introverted traits.*

Researcher HM: *Do you think there are any advantages of playing video games?*

7d: *Sense of satisfaction, I'm in my own world. People play games because they enjoy doing something fun, its enjoyment, that feeling you're a part of something.*

Researcher HM: *Do you think there are any negatives or disadvantages of playing video games?*

7d: *Social exclusion- possibly. I think it can make some people aggressive, those are the two things that spring to mind, although I suppose for some it can also be social inclusion. It's a minefield really.*

Appendix 8: Screenshot examples of thematic analysis (including theme and nodes)

Overview of 27 Interviews and number of references (NVivo)

All interviews

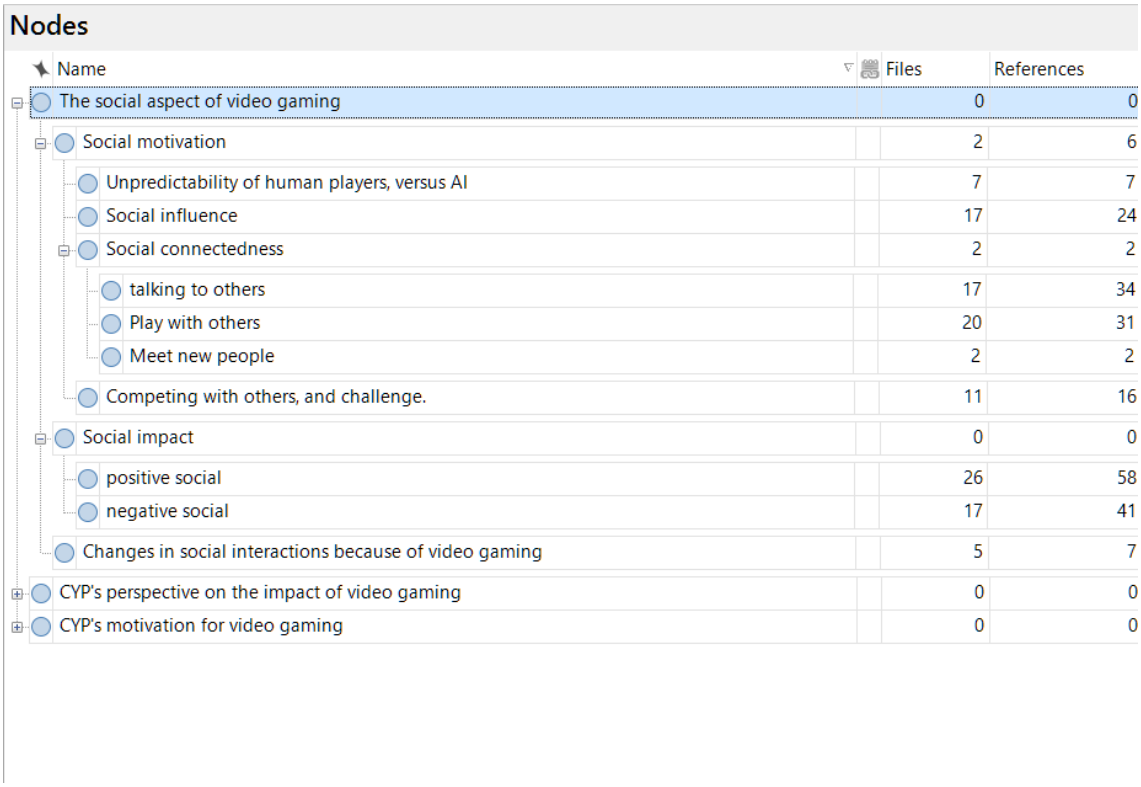
Name	Codes	References	Modified On	Modified By
Interview 2a	17	35	22/03/2019 16:30	HM
Interview 2b	11	18	22/03/2019 16:30	HM
Interview 2c	15	28	22/03/2019 16:30	HM
Interview 3a	15	27	22/03/2019 16:31	HM
Interview 3b	19	36	22/03/2019 16:31	HM
Interview 3c	20	31	22/03/2019 16:31	HM
Interview 3d	18	32	22/03/2019 16:31	HM
Interview 3e	16	27	22/03/2019 16:31	HM
Interview 3f	20	29	22/03/2019 16:31	HM
Interview 3g	19	26	22/03/2019 16:31	HM
Interview 3h	15	20	22/03/2019 16:31	HM
Interview 3i	15	21	22/03/2019 16:31	HM
Interview 4a	18	32	22/03/2019 16:31	HM
Interview 4b	19	34	22/03/2019 16:31	HM
Interview 4c	18	32	22/03/2019 16:31	HM
Interview 4d	20	27	22/03/2019 16:31	HM
Interview 6a	19	25	22/03/2019 16:30	HM
Interview 6b	23	33	22/03/2019 16:30	HM
Interview 6c	18	22	22/03/2019 16:30	HM
Interview 6d	16	24	22/03/2019 16:30	HM
Interview 6e	17	25	22/03/2019 16:30	HM
Interview 7a	10	16	22/03/2019 16:31	HM
Interview 7b	17	22	22/03/2019 16:31	HM
Interview 7c	8	12	22/03/2019 16:31	HM
Interview 7d	16	28	22/03/2019 16:31	HM
Interview 7e	18	23	22/03/2019 16:31	HM
Interview 7f	23	33	22/03/2019 16:31	HM

NVivo Node breakdown for Theme 1

Nodes

Name	Files	References	Created On
The social aspect of video gaming	0	0	23/03/2019 21:29
CYP's perspective on the impact of video gaming	0	0	22/03/2019 16:52
CYP's motivation for video gaming	0	0	22/03/2019 16:38
Motivated by potential mental or physical benefits	0	0	23/03/2019 00:28
Validation and or self efficacy	4	4	22/03/2019 18:35
Mental Stimulation	5	8	22/03/2019 16:43
Co-ordination	1	1	24/03/2019 10:17
Benefits to mood	4	4	22/03/2019 22:38
Locus of control	3	3	22/03/2019 22:28
Interesting or vast content	3	5	23/03/2019 11:34
Escapism	9	15	22/03/2019 19:01
Entertainment and reducing boredom	26	62	22/03/2019 16:38
Ambition and career prospects.	3	8	22/03/2019 20:48
A way to relax, unwind or have a break	7	9	22/03/2019 18:26

NVivo Node breakdown for Theme 2



Nodes

Name	Files	References
The social aspect of video gaming	0	0
Social motivation	2	6
Unpredictability of human players, versus AI	7	7
Social influence	17	24
Social connectedness	2	2
talking to others	17	34
Play with others	20	31
Meet new people	2	2
Competing with others, and challenge.	11	16
Social impact	0	0
positive social	26	58
negative social	17	41
Changes in social interactions because of video gaming	5	7
CYP's perspective on the impact of video gaming	0	0
CYP's motivation for video gaming	0	0

NVivo Node breakdown for Theme 3

Nodes

Name	Files	References
The social aspect of video gaming	0	0
CYP's perspective on the impact of video gaming	0	0
Overall wellbeing and development	0	0
References to addictive patterns, negative behaviours or difficulties stopping	24	46
Positive impact upon wellbeing or mood.	10	14
Exposure to graphic content and potential social learning	3	4
Detriment to health, mood, emotions	17	32
Opportunism and access to others.	5	6
Interaction with video games and alternative activities	0	0
Social or face to face activity	9	9
Productive activity	7	7
Other screen based activity	15	16
Other indoor activity	3	4
Active or physical activity	8	9
Impact on learning	0	0
Positive re learning or career	17	26
negative learning or career	18	30
Detriment to productivity	2	3
Poor use of time	3	5
Impact on chores and home tasks	2	3
Dangers and risks	12	15
CYP's motivation for video gaming	0	0

Example of verbal responses coded into 'Detriment to health, mood, or emotions' within NVivo

- *Researcher's questions are included only if additional context is required*

Participant 2a

Reference 1 - 1.16% Coverage

2a: *A little bit, I sometimes think it's bad because it makes me late for bed.*

Reference 2 - 1.43% Coverage

2a: *Makes my eyes go blurry. It's affecting my bedtime and my vision- according to the Doctor.*

Reference 3 - 1.39% Coverage

2a: *I sometimes get headaches and the doctor told my Mum maybe I shouldn't play video games.*

Participant 2c

Reference 1 - 2.55% Coverage

2c: *Can (video gaming) sometimes be annoying- especially if you're reloading and you get shot. I react by turning it off to calm down before going on it again.*

Reference 2 - 3.50% Coverage

Researcher HM: *Do you find that video games can make you angry quite often?*

2c: *If I keep dying, then yes, it's really annoying because you have to start again. No-one likes dying loads.*

Reference 3 - 2.27% Coverage

Researcher HM: *Do you think playing video games has a good or positive effect on your life?*

2c: *No (it doesn't have a good effect) because I mess up which makes me angry.*

Participant 3a

Reference 1 - 2.54% Coverage

3a*: I was thinking about stopping (video gaming) as it may be bad for my eyes and my sleep isn't good. In my new regime I play far less. I get off at eight.*

Reference 2 - 3.74% Coverage

Researcher HM: *What made you want to reduce the time you play video games?*

3a: *I read bad things about it in the news. And I kind of thought my headaches may be caused by the amount (of time) I'm playing.*

Participant 3b

Reference 1 - 3.23% Coverage

3b: *If you spend too long, or if you play too many times in one day it will affect you.*

Researcher HM: *How will it affect you?*

3b: *Like it can make you tired, it can give you headaches and it gets in the way of work.*

Participant 3d

Reference 1 - 2.12% Coverage

3d: *They (video games) annoy me.*

Researcher HM: *How do they (video games) annoy you?*

3d: *Like if you die loads or lose loads of games you just want to throw your controller.*

Reference 2 - 2.25% Coverage

Researcher HM: *Do you think there are any negatives or disadvantages of playing video games?*

3d: *Stress, anger, like when you come second place in Fortnite.*

Reference 3 - 3.37% Coverage

Researcher HM: *Tell me how you feel when you finish second?*

3d: *You've come so close to winning, and if you win it improves your win record, second counts for nothing which is a joke. I am getting better at stopping playing though.*

Participant 3f

Reference 1 - 2.76% Coverage

Researcher HM*: Tell me more about how it can make you feel annoyed?*

3f: *If I keep losing it gets on my nerves and I can't be bothered to play any longer. I just get off.*

Participant 3g

Reference 1 - 6.12% Coverage

Researcher HM: *Do you think there are any negatives or disadvantages of playing video games?*

3g: *It can lead to not eating because you're too engrossed in a game. You need breaks and some people can forget and let it take over their lives.*

Researcher HM: *Does that ever happen to you; you forget to eat sometimes?*

3g: *No not me, but other kids, yes.*

Participant 3i

Reference 1 - 5.24% Coverage

Researcher HM: *What can happen if someone plays too much? What are the downsides and how much is too much?*

3i: *Like four hours or more a day I reckon. You probably lose sleep, do less work and just it can't be good for your head or your eyes.*

Participant 4a

Reference 1 - 3.39% Coverage

4a: *If they (other CYP) play after 9pm they may get insomnia.*

Researcher HM: *Why is that?*

4a: *Well we learned that too much video gaming can give you insomnia in school. You're not supposed to look at screens for too long.*

Participant 4b

Reference 1 - 0.45% Coverage

4b: *I don't get enough sleep (because of video gaming).*

Reference 2 - 5.45% Coverage

Researcher HM: *So, what do you think are the negatives or disadvantages of playing video games- did you learn about those too?*

4b: *Well I know that, for me, If I get too close (to the display screen) my eyes start to hurt. It can sometimes give me a headache. When this happens, I sometimes carry on playing, sometimes I stop.*

Participant 4c

Reference 1 - 5.40% Coverage

Researcher HM: *Do you think playing video games impacts upon your learning?*

4c: *Yeah and in a bad way as if you're playing for too long you don't get work done, you also get less sleep if you play too long. If you play past 9pm you can get insomnia. You may fall asleep in the lesson or struggle to concentrate.*

Reference 2 - 1.87% Coverage

4c: *I know that if I have played too late the night before I am tired in class, which isn't good for learning.*

Reference 3 - 2.24% Coverage

4c: *It can also give you insomnia.*

Researcher HM: *Tell me more.*

4c: *It can give you insomnia because your eyes just can't take it.*

Participant 4d

Reference 1 - 0.92% Coverage

4d: *I get pretty angry if I keep dying or losing (while video gaming) though.*

Reference 2 - 3.93% Coverage

Researcher HM: *Do you think playing video games has an impact or effect on your life?*

4d: *A bit of a bad effect as it causes insomnia, you could get cyberbullied.*

Participant 6a

Reference 1 - 3.56% Coverage

Researcher HM: *Do you think there are any negatives or disadvantages of playing video games?*

6a: *It can make people really angry- my brother gets extremely angry and hits the wall!*

Reference 2 - 1.55% Coverage

6a: *You can go to bed late and then wake up late (as a result of video gaming). It can hurt my eyes sometimes.*

Participant 6d

Reference 1 - 1.96% Coverage

6d: *It (video gaming) also impacts on my football- if I stay up late playing video games then I get tired and can't play as well.*

Reference 2 - 2.46% Coverage

Researcher HM: *Does that happen a lot? You get too tired so you can't play football as well as you'd like to?*

6d: *I reckon most weeks*.

Reference 3 - 3.99% Coverage

Researcher HM: *Do you think there are any other negatives or disadvantages of playing video games?*

6d: *It can make you addicted, you can play for a long time and your eyes start to hurt, you won't be able to focus on things.*

Participant 6e

Reference 1 - 5.35% Coverage

Researcher HM: *Do you think playing video games has an impact or effect on your life or do you think video gaming impacts upon children's lives, generally?*

6e: *I think it has a bad effect because I don't speak to people when I'm off as I'm moody.*

Participant 7d

Reference 1 - 0.68% Coverage

7d: *I think it (video gaming) can make some people aggressive.*

Participant 7f

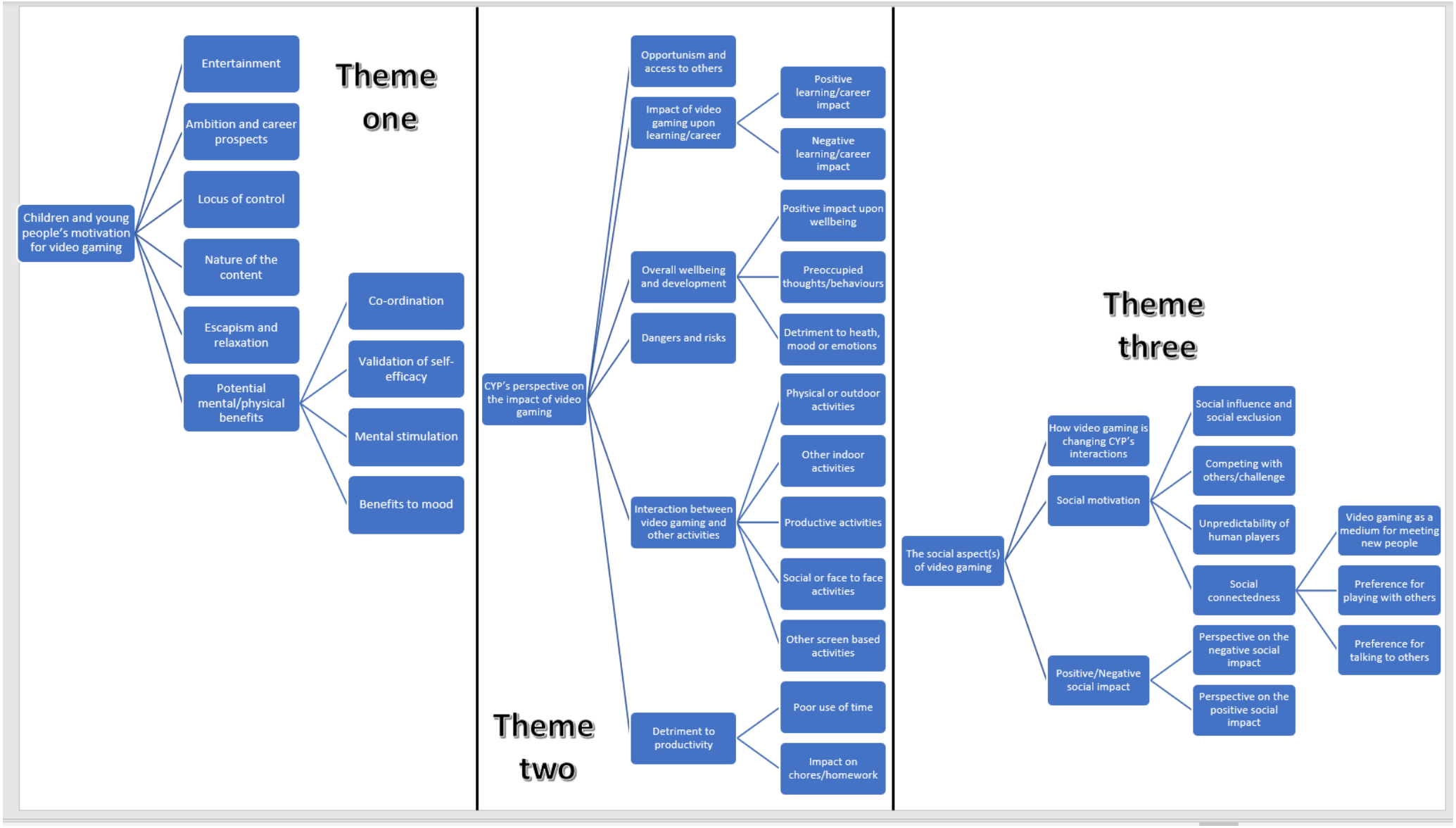
Reference 1 - 2.36% Coverage

7f: *When you take them more seriously, they become less fun really. Fortnite used to be fun, but now I play it competitively which is stressful sometimes.*

Reference 2 - 0.49% Coverage

7f: *I take it too serious sometimes.*

Appendix 9: Overall Thematic Map


Theme one
Children and young people's motivation for video gaming
Entertainment
Ambition and career prospects
Locus of control
Nature of the content
Escapism and relaxation
Potential mental/physical benefits
Co-ordination
Validation of self-efficacy
Mental stimulation
Benefits to mood
Theme two
CYP's perspective on the impact of video gaming
Opportunism and access to others
Impact of video gaming upon learning/career
Positive learning/career impact
Negative learning/career impact
Overall wellbeing and development
Positive impact upon wellbeing
Preoccupied thoughts/behaviours
Detriment to heath, mood or emotions
Dangers and risks
Interaction between video gaming and other activities
Physical or outdoor activities
Other indoor activities
Productive activities
Social or face to face activities
Other screen based activities
Detriment to productivity
Poor use of time
Impact on chores/homework
Theme three
The social aspect(s) of video gaming
How video gaming is changing CYP's interactions
Social influence and social exclusion
Social motivation
Competing with others/challenge
Unpredictability of human players
Social connectedness
Video gaming as a medium for meeting new people
Preference for playing with others
Preference for talking to others
Positive/Negative social impact
Perspective on the negative social impact
Perspective on the positive social impact

Appendix 10: Certificate of ethical approval

UNIVERSITY OF EXETER

GRADUATE SCHOOL OF EDUCATION

St Luke's Campus
Heavitree Road
Exeter UK EX1 2LU

http://socialsciences.exeter.ac.uk/education/

CERTIFICATE OF ETHICAL APPROVAL

Title of Project: **The Prevalence and Motivation of Children's Video Game usage: With a focus on Social Implications.**

Researcher(s) name: **Harry Morse**

Supervisor(s): **Andrew Richards and Chris Boyle**

This project has been approved for the period

From: **21/06/2018**
To: **26/07/2019**

Ethics Committee approval reference: **D/17/18/51**

Signature: Date: 21 June 2018
(Professor Dongbo Zhang, Graduate School of Education Ethics Office)